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The Chemists' and Druggists' Diary, 1907.

39th Year of Publication.

Preliminary Notice.

THE preparation of this work has already commenced, and advertisers who wish to avail themselves of the opportunity of making their announcements in the new volume should make sure of getting space by addressing the publisher of THE CHEMISTS' AND DRUGGISTS' DIARY, 42 Cannon Street, London, E.C.

THE DIARY is presented free to all subscribers to THE CHEMIST AND DRUGGIST, and being in daily use by thousands of our readers throughout the year is the most esteemed and valuable advertising-medium of the kind in the world. Remember that with our unique foreign and colonial circulation it is necessary to go to press at an early date, so that the DIARY may be delivered to subscribers abroad before Christmas.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

USEFUL FORMULÆ are given on p. 343.

IMPROVED forms of Kjeldahl nitrogen apparatus are figured on p. 332.

SOME METHODS OF TREATING SCIATICA form the subject of a note on p. 343.

THE TAX ON CATALOGUES AND PRICE-LISTS in the Cape Colony has been abandoned (p. 325).

SOME REMEDIES FOR ANKYLOSTOMIASIS used in the West Indies are referred to on p. 326.

THE IMPORTANT SECTION of the Prevention of Corruption Act which becomes law on January 1 is given on p. 337.

A READABLE RÉSUMÉ of Professor J. J. Thomson's Royal Institution lectures on Matter is printed on p. 329.

THE IMPORTANCE OF PHYSICS in the scheme of home study is impressed upon students in the Corner for Students (p. 320).

AN IMPORTANT OFFICIAL COMMUNICATION regarding the import of pills and tablets into South Africa is printed on p. 325.

FIRE HAS BEEN ACTIVE in chemists' shops during the week, although the damage done has not been serious in any case (p. 321).

THE AMOUNT OF SLEEP allowed to children should be on a liberal scale if the child's powers are to remain unimpaired (p. 343).

THE TEXT OF THE NEW REGULATIONS, rendered necessary by the Revenue Act, 1906, for the export of medicinal tinctures is given on p. 338.

A LIST OF THIRTY-EIGHT DISINFECTANTS which conform with the standards approved by the Government of the Cape Colony is given on p. 325.

M. LOUIS ADRIEN PRUNIER, a well-known French pharmacist and Director of the Central Pharmacy of the Paris Hospitals, is dead (p. 324).

DR. MACALISTER has caught on to the idea of an Imperial Pharmacopœia, which he looks upon as the forerunner of an International Pharmacopœia (p. 323).

THE GROUNDS of the Pharmaceutical Society's protest against the granting of a charter to the National Association of Medical Herbalists are given on p. 335.

ASTIGMATISM is a frequent cause of eye-strain. In enunciating this by no means new discovery Dr. Hinshelwood has a fling at chemist-opticians and general medical practitioners (p. 339).

THE PROPOSED BY-LAWS of the London County Council regulating the employment of children are printed on p. 336. The regulations possess an interest to chemists who employ part-time errand-boys.

MR. FORBES CARPENTER, the Chief Inspector of Alkali-works, in his report shows that the alkali industry was increasingly prosperous in 1905. He also deals with some interesting chemical problems, which we explain on p. 336.

CASTOR OIL, euonymus-bark, linseed oil, ordinary nitrate of soda, sugar of lead, turpentine, prussiate of potash, and Tonquin musk are more or less higher in value. Russian cantharides and senega are cheaper. The holidays and the heat-wave have helped to curtail business this week (p. 344).

THE ANALYST FOR CAPE COLONY has had many problems to investigate, chiefly connected with the vegetable products of the Colony. Mr. Juritz suggests that there is sufficient scope in the subject to warrant the appointment of an analyst specially charged with research work on native drugs (p. 335).

OUR CORRESPONDENCE COLUMNS this week are instructive and practical. Further suggestions regarding window-displays are sent by various pharmacists; Mr. Parry writes on otto of roses; and an Irish lady-pharmacist details some results obtained in the analysis of commercial samples of lime-water (p. 348).

"XRAYSER" has some pertinent remarks to make about window-dressing, in view of the interest shown in the subject in our correspondence columns. The other subjects dealt with in the weekly *causerie* are the origin of prescription signs, Behring's new consumption cure, and the purple of Thyatira (p. 333).

Formulas

of "known, admitted, and approved" remedies may be communicated to the Editor at any time for publication in the next editions of "Pharmaceutical Formulas" and the *C. & D. Diary*.

Corner for Students.

Note.—The analytical exercises conducted by Dr. Leonard Dobbin will be resumed towards the end of September.

A SCHEME OF HOME STUDY.

By DAVID J. WILLIAMS, F.C.S., Pharmaceutical Chemist.

Physics.

THIS subject is one which has occupied the minds of philosophers through ages past. Its various branches gave food for controversy to the ancients, and it still provides ample scope for the modern scientist. Vast discoveries in this line of natural science have increased its importance materially, and even the pharmacist familiar with the fundamental principles is a better craftsman on that account. The Minor candidate will find that in chemistry, pharmacy, practical materia medica, and even botany, he cannot get along without this knowledge.

It will be observed that considerable weight is attached to this branch in the examination as well as in practice, but there only those points of extreme importance to the examination candidate can be touched upon.

It is feared that too little practical work is done in this direction in preliminary study. Too much is left to the imagination, and therefore there is often a certain amount of dislike shown. It is true that physical laboratories are somewhat few and far between, owing, no doubt, to a great extent, to the expense of fitting, but this need not deter the candidate from performing very many of the simpler and crucial experiments. To carry out these less expensive than is imagined will be incurred, and it is most certainly better to get one idea fixed and thoroughly understood than to attempt to swallow a mass of hypotheses. The subject is essentially mathematical, and thus it is recommended that the student should keep up the knowledge of arithmetic and algebra required for the Preliminary examination. These subjects are far too frequently set aside and forgotten. Subsequent discouragement is the result.

Every physics-book of any value supplies its reader with a fair number of examples to be worked. Before leaving any one chapter these exercises should be carefully worked out, so as to test thoroughly the capabilities of the reader. The taste for sum-working is most usually one that requires cultivation, but it is certain that the student will find more pleasure than he imagines in this work.

The "balance" is such an important implement in the hands of the physicist, analytical chemist, and pharmacist that it is absolutely necessary for the student to know all about its principles. Now, to know this he must of necessity learn the ideas which led up to its construction—i.e., gravitation and its laws, and the principles underlying the use of levers, of which he will find that the balance belongs to the first of the three well-marked types. He should aim at becoming expert in its employment, and no detail of it should be left without a clear understanding of its use. A Minor student may not leave any of its parts, even to the lever which raises it or the calcium-chloride bottle within the case, as being too unimportant to understand. This fact has been proved over and over again during past Minor examinations.

Ranging in line of importance with this comes specific gravity and the apparatus employed in determining it. Here is a test of purity of various drugs, oils, etc., important from a pharmaceutical point of view. Specific-gravity tests are inexpensive enough to carry out. A small flask, a beaker, a pipette occasionally, some simple form of hydro-

meter, and the dispensing-scales are usually all that is required to understand the principles and working. The time taken is measured by the amount of practice which the candidate has. All must realise that in the examination both thorough practical experience and theoretical knowledge are required. The history, the principle of Archimedes, the laws of pressure on immersed surfaces, and the factors required for bodies to float must find a place in this important study.

Again, the barometer and thermometer are instruments which, owing to their everyday use, should be thoroughly understood. Their method of preparation and graduations are points of extreme importance. Various types of these instruments should be studied, and the reasons for their uses in special cases should be hunted out. In close association with these the methods of ascertaining melting and boiling points require special notice. It seems almost needless to point out that these factors are of great importance. The directions given in the B.P. are very explicit, and the candidate will save himself much subsequent worry if he applies himself to the practical ideas entailed in the directions supplied. One experiment in this direction will imprint on his mind what difficulties are attached to such practical work, and, as before stated, more will probably be learnt in twenty minutes in this way than by lengthy reading. In a melting-point he will learn, by watching the thermometer rising and the capillary tube of material probably showing less and less opacity, that keen observation is a necessity, but that with the experience now obtained he can detect the point of transparency as easily as the practised sportsman detects his quarry against the apparently indistinguishable background.

It will thus be observed that as much detail as possible has to be woven round the study of these important instruments and their principles of manufacture and use. A superficial knowledge is not by any means sufficient.

(To be continued.)

English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

Messrs. E. Cook & Co., Ltd., soap specialists, Bow, E., have presented another cup and medals for competition to the Essex Beagles, the well-known cross-country club.

The Kent County Council have decided to reappoint Mr. M. A. Adams as public analyst at an annual salary or retaining-fee of 200*l.* and a fee of 6*s.* for each sample analysed.

At Barnsley on August 20, an American cowboy, Noll Cody, was remanded on charges of obtaining 17*s.* by false pretences from a widow, named Nelson, whom he guaranteed to cure of cataract of the eye.

A German, named Arnold Doll, broke the shop-window of Mr. James Barron, chemist and druggist, at Bridge, near Canterbury, last week, and stole four bottles of aperient water. He was remanded by the County Bench on August 20.

The "Liverpool Daily Post" is justified in being scornful about a doctor who advertised for a "lady dispenser and to give help with housework. Salary 2*l.* a month, no washing."

At Dartford on August 17, Frank Halsey was bound over under the First Offenders Act for stealing two tubes of Hazeline cream, two boxes of tabloid chlorate of potash, and other articles of the value of 15*s.*, the property of his late employers, Messrs. Burroughs Wellcome & Co.

At North London Police Court on August 23, Margaret Stuart was sentenced to four months' imprisonment for

stealing a scent-spray, worth 3s. 9d., from the shop of Mr. Harold Osborne, chemist, of Abney Park Terrace, Stamford Hill, and other goods from a hosier's shop.

Calcium chloride as a road-dust preventer is claimed to be very satisfactory by the Corporation of Nottingham after a three-months' trial. It keeps the surface perpetually damp at an estimated inclusive cost of 60*l.* per mile per annum for a 40-ft. road.

The premises of Mr. G. D. Crozier, chemist and druggist, Kirkby Stephen, narrowly escaped being wrecked on August 15. A runaway horse, attached to a vehicle, dashed against the shop-front, but the windows were not damaged, although a bicycle standing against them was destroyed.

At Croydon on August 18, a Wallington labourer, named Holly, was charged with stealing from a field at Sandy Lane a quantity of growing lavender, value 3s., the property of Thomas Ward, of Beddington. Prisoner denied the charge, but was ordered to pay a fine of 10s., 3s. the value of the lavender, and 4s. 6d. costs.

At a meeting of the Court of Assistants of the Society of Apothecaries, held at the Society's Hall, Blackfriars, on Tuesday, Mr. E. Parker Young was chosen as Master, and Mr. George Wilks and Mr. F. Gordon Brown, surgeon to the City of London Police, were elected respectively as Senior and Junior Wardens for the ensuing year.

Motorists and the motor-car trade are protesting strongly against the rise in the price of petrol by the three controlling oil companies. Two gallons of the spirit is now sold at the price paid for 3 gals. two years ago. As petrol forms one of the heaviest items in running a car, it may be easily appreciated what a rise in the price means.

What is described as a "record dose of poison" was taken by Frederick Smith, a Yarmouth fish-merchant, who appeared before the Yarmouth Magistrates last week. He had taken 1 oz. of oxalic acid, and was saved by emetics of salt and water and chalk and water and afterwards kept alive for several days by injections, his throat being closed.

A labourer, named Smith, was charged at Leyburn, on August 17, with the theft of a purse containing 3*l.* 1s. 6d. and two gold rings belonging to Mrs. Bowe, wife of Mr. Oswald R. Bowe, chemist and druggist, of Hawes. After hearing the evidence the Bench fined the accused 25s., and ordered him to pay 3*l.* found upon him to Mrs. Bowe.

At Worthing (Sussex) on August 17, two men, named Crawley, *alias* Clifford, and Vale, were remanded on charges of the theft of a camera and stand, twelve photographic plates, and a focussing-cloth, value 3*l.* 17s. 9d., the property of Mr. Percy Frederic White, chemist and druggist, of Park Road, Worthing. Prosecutor said he had arranged with the prisoners to take a dozen views of interest in the town. He lent them the goods mentioned, but prisoners did not return.

Fires.

A building in Drew's Mews, Glamis Road, Shadwell, used as a chemical-works, was destroyed by fire on August 20.

A fire occurred on August 14, on the premises of Mr. Harold Healey, chemist and druggist, of 677 Romford Road, East Ham, E. The outbreak was caused by the overheating of a gas-stove. The damage done was not serious.

Fire broke out on August 16, in a tower at the chemical-works of Messrs. Brunner, Mond & Co. at Northwich, but, owing to the promptitude displayed by the staff fire-brigade, the flames were extinguished before material damage was done.

On August 18 the branch establishment of Boots, Ltd., in Old Market, Halifax, narrowly escaped serious damage by fire. When the outbreak was discovered the shop-assistant on duty telephoned promptly to the fire-brigade station, and a tender with a relay of men was on the scene in a few minutes. They were thus enabled to grapple with the fire before it had got much hold.

Early on the morning of August 14 a fire was discovered on the premises of Messrs. Pilchers, Ltd., white-lead manufacturers, Morgan's Lane, Tooley Street, Bermondsey, S.E. The works occupy over an acre of ground, but the fire was confined to the ground and first floors of part of the works. The colour-striking and paint-grinding plant and greater part of the stock were not injured by the fire.

An alarming fire broke out on August 21, at the premises of Mr. James Roberts, chemist and druggist, of 82 Stoke's Croft, Bristol. The conflagration was discovered in a store-room at the rear of the building, and the outbreak is supposed to have been caused by the overheating of a gas-stove. Within a very short time the fire-brigade were in attendance, and the flames were quickly got under control. Still, considerable damage was done. Two store-rooms on the ground floor and their contents suffered materially, and the shop and upper part of the house were affected by smoke.

On August 16 an alarm of fire was raised at the shop of Messrs. Rogerson & Son, chemists, 8 Darley Street, Bradford. The alarm was caused by dense smoke appearing in a store-room and the shop while business was in full operation, and without apparent cause. The fire-brigade was summoned, and, upon investigation, it was found that a joiner, working in an unoccupied shop next door to Messrs. Rogerson's, was burning rubbish in a fire-grate from which there happened to be no outlet, and the smoke was therefore finding its way next door. It was an annoying experience for Messrs. Rogerson, and a certain amount of damage was done by the smoke.

An Overdose of Salts.

An adjourned inquiry was held at the Black Prince Inn, Ynysddu, on August 17, into the death of Jane Francis, who died on July 31 after taking a large dose of Epsom salts. It was thought that the salts might have contained poison, and an order was made for analysis.—Mr. G. R. Thompson, county analyst, Newport, reported that the salts submitted to him were perfectly pure, and there was absolutely nothing of a poisonous nature in the stomach and contents. The only thing of a metallic nature which he found was a fairly large quantity of magnesia which would be compatible with the deceased having taken a dose of salts.—Dr. R. E. Roberts deposed that he saw the deceased shortly before death, and she was then in a state of coma. He was told that she had taken sulphate of magnesia, and he injected strychnine into her arm and gave her brandy, and tried to keep up the internal heat. He thought she had taken an overdose of Epsom salts. An ounce of these salts in the case of a delicate woman would bring about coma and collapse. He considered that a third of an ounce was quite a sufficient dose.—The jury returned a verdict to the effect that death was due to collapse after taking an overdose of sulphate of magnesia.

Drug-analyses.

The Deptford public analyst examined cayenne pepper (3 samples), camphorated oil (1), cream of tartar (2), liquorice powder (3), milk of sulphur (3), and tartaric acid (1). All were genuine.

The drug-samples examined in Poplar under the Sale of Food and Drugs Acts during the past year included Gregory's powder (1), glycerin (1), purified cream of tartar (1), and cod-liver oil (1). All were genuine.

During the past quarter forty-one samples of drugs were submitted to the Kent county analyst (Mr. M. A. Adams), one of which—a sample of sweet spirit of nitre from Rochester—was found 72.9 per cent. deficient in ethyl nitrite.

In Bermondsey there were samples of camphorated oil (2), glycerin (2), saffron (2), milk of sulphur (3), vaseline (1), cod-liver oil (4), compound liquorice powder (1), and ginger-wine (1). Of these only one—a sample of camphorated oil—was adulterated, and the vendor was cautioned.

In Bethnal Green were analysed camphorated oil (11 samples), liquorice powder (4), linseed oil (4), prescriptions (3), crushed linseed (1), and cod-liver oil (1). The only adulteration detected was as regards three of the samples of camphorated oil. The most serious case was one in which the oil was found to be deficient in camphor to the extent of 5½ per cent. "As this could easily have happened by evaporation, a caution only was administered to the vendor."

In St. Pancras there were examined samples of glycerin (6), distilled water (3), camphorated oil (6), castor oil (3), magnesia (1), sugar of milk (4), and cod-liver oil (1). Of these one of magnesia and three of distilled water were adulterated. The sophistication, it is reported, was not

sufficiently serious to warrant proceedings except against the vendor of one sample of distilled water, which yielded more than scarcely visible residue, did not retain its colour, and contained 3.5 parts of ammonia per million instead of 0.005 part. A conviction followed, and a fine of 10s., with three guineas costs, was imposed.

Midland Notes.

Quite a rush on carbolic soap and boric-acid lotions has been experienced in the Midlands recently owing to the prevalence of mosquito-bites.

The best remedy for harvest-bugs, according to the "Birmingham Post," is ordinary vinegar, which also kills the insects. "Would not the old-style 'aromatic vinegar' be better?" asks a Birmingham correspondent.

An instance of the "perfection of medical diagnosis," spoken of by Sir James Sawyer, is recalled in the case of a man who was being treated for suppressed gout, when it was subsequently ascertained to be the beginning of a fatal attack of typhoid.

A new order of things is appearing in Birmingham. Formerly the medical man had the pharmacist's spare rooms for consultations, but lately there appears to be a falling-off in this kind of union and the place of the medico is being taken by the dentist. This is very noticeable in the suburbs and the small towns in the immediate neighbourhood.

Mr. T. G. Dobbs, the Worcester lawyer, known to pharmacy as the active spirit of the Traders in Poisonous Compounds for Trade Purposes Protection Society, was rebuked at the Worcester Election Commission inquiry by one of the Commissioners, Mr. Charles Mathews, K.C., while another, Mr. Horace Ivory, K.C., on a question of law remarked, "You are not up to date, Mr. Dobbs."

A paragraphist in the "Birmingham Mail" characterises the following incident as a type of extreme meanness. A patient called on a local medico for medicine. The mixture was made up. The price was 2s. 6d., but the woman had only 2s. Thereupon the dispenser is ordered through the speaking-tube to remove two doses from the bottle before handing it over to the patient.

The death is recorded of a very old Birmingham dentist, Mr. Charles Sims. Mr. Sims practised when there were only nine dentists in Birmingham. He was the prime mover in the establishment of the Dental Hospital, and was in his best days a dental genius. A correspondent asks his old pupils, many of whom passed from pharmacy to dentistry at his instigation, "to raise their hats as a mark of recognition of the many qualities which Charles Sims undoubtedly possessed."

Oxalic acid is very largely sold in Birmingham. It is so cheap that the surplus is often negligently dealt with. One packet some time ago found its way into the *omnium gatherum* of a cookshop. From there it went to the proprietor's farm in the country, where it was doled out to and ended the mortal career of six fine specimens of the *Sus scrofa*. Young women obtain oxalic acid for the ostentatious purpose of cleaning straw hats, but a pharmacist who has had experience in the Black Country with a medical man asserts that it is taken in minute doses by the girls in order to whiten the complexion.

A local paper gives prominence to a discussion on "Doctors and Success." Dr. Snow, of London, speaking from observations based on his experience, says that "unscrupulousness, selfishness, hypocrisy, industry, and ability, with luck, are the main elements of success. 'Ability *per se* is valueless—even harmful.' "If he has not wealth he must marry it." Dr. Kingscote (Edinburgh) tells of an Aberdeen man who went to the Midlands to practise. A friend asked how he was getting on. The "canny man" professed himself well satisfied, but the friend said, "But I see you have only two drugs in your surgery." "Yes, just two—laudany and calomy." "But don't a great number of your patients die?" "Oh, ay, but it'll tak a long time to mak' up for Flodden." This man, from his own point of view, was successful.

In the Wake of the Storm.

Mr. J. D. Harrison, chemist and druggist, of Barnsley Road, Cudworth, has written to the Urban District Council complaining that whenever there is a storm his cellar is

flooded through the drains being defective. When the matter came before the Council on August 15, the Clerk said the question seemed to be a private one, and not one for the Council.

During a thunderstorm at Braintree on August 13, a large window over the shop of Mr. G. C. Row, J.P., chemist and druggist, High Street, fell to the pavement through the sash-cords breaking. Happily no one was injured.

Floor-polish Again.

Mr. Schröder held an inquest at Islington on August 11 concerning the death of Catherine Willcox (51), of North Hill, Highgate, who succumbed to severe burns at the Great Northern Hospital. It appeared that the woman had been cleaning a house, when a mixture of turpentine and bees-wax, for floor-polishing, which had been on a gas-stove, was upset, and the flames caused the burning. A verdict of death by misadventure was returned.

Orphanage Votes Wanted.

Julia May Lowther, the eight-year-old daughter of the late Mr. William Lowther, chemist and druggist (who died at Southsea last year), is a candidate for the London Orphan Asylum, Watford. Chemists who have votes or are able to influence votes will do a kindness by communicating with Mrs. J. Lowther, 82 Francis Avenue, Southsea.

Manchester Notes.

A fine collection of water-lilies—the gift of a friend—is now to be seen in the ornamental lake of the Botanical Gardens at Old Trafford. The lilies are now in the height of their beauty. In colour they range from deep crimson to snowy white, and the value of the collection may be understood from the fact that the Curator of the Royal Botanical Gardens at Kew offered to buy the whole for

the Gardens as soon as he saw them. A correspondent of the "City News" sends a list of 134 plants in bloom, mostly old-fashioned hardy perennials, and grown almost within sight of the Manchester Town Hall tower. The list includes monkshood, yarrow, wormwood, alkanet, foxglove, fennel, hop, lavender, lobelia, horehound, red poppy, feverfew, rue, and thyme.

It is also interesting to note that the lock-gates on the ship-canal at Irlam are made of the wood of the greenheart-tree, *Nectandra Rodiei*. In Greenish's "Materia Medica" it is stated that "the tall, straight stem yields a hard and resistant wood that is highly valued for shipbuilding." These gates, it will be remembered, were damaged in June last by the steamer *Cassia* as it was entering the lock.

Sport.

Wholesale Druggists' C.C. League.—A League match between May & Baker C.C. and "Gramme" C.C. was played at Raynes Park on August 18. The May & Baker team went in first, scoring 110, to which "Gramme" replied with 43. Peters took six wickets for 29, and Slade three wickets for 10.

Barronetta C. C. (Barron, Harveys & Co.) v. Heron C. C. (Hearon, Squire & Francis, Ltd.).—Played at Wormholt Farm on August 18 and resulted in a win for the Barronetta C. C., for whom Dean took five wickets for 11 runs. Scores: Barronetta C. C., 68; Heron C. C., 38.

The annual meeting of the Newcastle Pharmacy Football Club was held on August 22. The officers elected were: Captain, Mr. J. Elliott; Vice-Captain, Mr. R. Embleton; Secretary, Mr. J. Crake, 148 Heaton Park Road; Assistant Secretary, Mr. G. Adams; Treasurer, Mr. J. G. Duncan. Mr. J. Bolam has again consented to act as President. The Treasurer's report showed a deficiency of 2l. 12s. 3d. on the season's working. The report was adopted. It was announced that most of last season's players were available together with several others.

AUSTRALIAN SPIRIT-DUTIES.—A reduction of 1s. has been made in the Excise-duties on spirits, corresponding with that made in Customs-duties announced in the C. & D. last week.

THE EXPORTS OF RUSSIAN ANISEED from Riga during 1905 amounted to 95 tons only, compared with 242 tons in 1904 and 160 tons in 1903.

PERFUMERY valued at 6,752l. was exported from Germany and France to Guatemala last year, which Republic also bought druggists' sundries valued at 1,151l. and chemicals valued at 20,994l. The contributions from the United Kingdom are insignificant.

Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Medicine-analyses.

Messrs. Sumner & Co., Liverpool, reply to the Delvin Board of Guardians, in reference to tr. cardam. co. reported by the analyst as defective, that they will be glad to send another supply when the batch complained of is returned.

The L.G.B., writing to the Trim Guardians, remind them that a sample of liq. ferri fort. reported by the analyst to be 25 per cent. below the B.P. requirements should have been returned to the contractor, who is bound to supply medicaments according to the B.P. standard.

Platinum-theft.

At Belfast Police Court on August 17, Albert Jarvis, a laboratory porter in the Chemistry Department of the Queen's College, was charged with stealing 69*l.* worth of platinum and platinum vessels the property of the college authorities and of Professor Letts, professor of chemistry. The evidence showed that for five years laboratory articles have been missed by Professor Letts, but not till last month did suspicion fall on Jarvis. When arrested prisoner admitted his guilt. From 1901 he had sixty-three transactions in the sale of scrap platinum with Edward Day, a bullion dealer, of Birmingham. The Magistrates, taking into account the assistance accused gave the police, sent Jarvis to gaol for four months.

Charge of False Pretences.

In the Dublin Northern Police Court on August 17, before Mr. Wall, K.C. (Senior Divisional Magistrate), a young man named Patrick Donnelly was charged with having obtained 2*l.* 6*s.* 8*d.* on a cheque from Mr. Walter Murphy, chemist and druggist, 48 North King Street, Dublin, by means of false pretences. Donnelly tendered a cheque for 3*l.* 10*s.* in payment for a stone of resin, which came to 3*s.* 4*d.* Mr. Murphy gave him 2*l.* 6*s.* 8*d.*, telling him to come back next day for the balance of 1*l.*, as he was short of change at the time. Donnelly never came back, and the cheque was returned marked "No account." His Worship remanded Donnelly for a week.

Dispensers' Salaries.

The Limerick Board of Guardians decided some time ago to grant an increase of salaries to two dispensers and several doctors, which the Local Government Board sanctioned. Later on, some Guardians who originally objected to the increase took steps to have the resolution rescinded, and the result is that the extra money will not now be paid. Messrs. A. & J. Robinson, solicitors, Dublin (solicitors for the Pharmaceutical Society), who are acting for the aggrieved professional men, have several times asked for the name of a solicitor who will accept service of a writ, but it was only at the last meeting that the Guardians decided to send a reply to the letter, giving the name of the Board's solicitor. The Long Vacation is now on in the Law Courts, so that it will be some months before the case can come on for hearing.

Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Business Change.

Messrs. Cockburn & Co., Ltd., chemists, of Glasgow, are to open up a new branch pharmacy under the Caledonian Railway bridge, Argyll Street, very shortly.

Edinburgh Pharmacy Athletic Club.

The growing popularity of bowling has induced this club to add a bowling section to its other departments. A tournament has been held in which twenty-four members took part. The first prize was presented by Mr. W. A. Davies (of Raimes, Clark & Co.), and the club added other three prizes. Some very keen play was witnessed, and the enthusiasm engendered augurs well for future matches. The prize-winners were: first, John Noble; second, J. Cochrane; third and fourth (equal), J. P. Gibb and R. McDougall.

Canadian Notes.

PURE FOOD.—The officials of the Montreal Food-inspection Department are busy framing a by-law with a view to governing the milk-supply of the city. The conditions under which milk is sold at the present time are far from satisfactory, the infantile death-rate being rather alarming during the present summer, traceable, it is thought, in many cases, to impure milk. Some of the dealers have been fined for using formaldehyde as a preservative. It is proposed to confiscate all milk not up to a certain standard, and strictly to enforce the new law against all offenders.

CHEAPER ALCOHOL.—The Inland Revenue Department has begun to move in the matter of cheaper alcohol for manufacturing-purposes, and on August 2 made a reduction in price of methylated spirit from \$1.10 and \$1.50 to 90c. and \$1.25 respectively. This article is controlled by the Government, and the Minister of Inland Revenue is now having experiments made with a view to obtaining a cheaper denaturing-mixture, so as to make a further reduction in the price; it is very doubtful, however, if he will be able to bring it down on a par with gasoline and other cheap fuels.

THE EASTERN DRUG CO., LTD., is the title of a new wholesale drug-concern just started in the City of Montreal, with an authorised capital of \$75,000. Proprietary medicines and trade-mark articles are the lines that will engage the company's special attention, and all dealers of repute in proprietary medicines are offered a share in the profits of the business, without purchasing or becoming actual holders of stock. Dividends will be paid every three months to all purchasers of the company's goods on the basis of 20 per cent. of the gross profit, to be estimated upon the goods bought by each individual. Packages will be free, and, so far as permitted by other manufacturers of proprietary medicines, goods will be delivered free when ordered in fair shipping quantities.

THE CANADIAN MANUFACTURERS' ASSOCIATION, at a meeting in Toronto last month, carried a resolution urging the withdrawal from bond of denatured alcohol duty free for use in industrial enterprise. This is a question which the Government must face in the next Session of Parliament if Canada is to stay in the procession. About a year ago a prominent railway official said the railroads of the country would give a million dollars for a patent that would enable them to run light locomotives on branch lines with small traffic, to hustle in the live-stock of the farmers on these lines to the main line. It now seems likely that denatured alcohol will be the fuel used for running these trains if it can be made as cheaply as it is asserted it can be. It may be said, in connection with the foregoing, that Inland Revenue officials declare that this alcohol will not for some time at least be used as a fuel for running motor-cars, one of the principal uses to which it is being applied in the United States, as it cannot be manufactured cheaply enough for this purpose, gasoline being procurable for about 20c. per gal.

THE BRITISH MEDICAL ASSOCIATION.—The formal opening of the annual meeting of the British Medical Association took place in the Convocation Hall of the Toronto University on August 22. Some 1,500 delegates had registered their names so that the attendance was quite equal to what it is when the meetings are held in England. Academic dress was worn at the meeting. Dr. Franklin, of Leicester, delivered the valedictory address, and official welcomes were made by the Mayor and Lieutenant-Governor. In the Therapeutic Section Dr. MacAlister, of Cambridge, President of the General Medical Council and Chairman of the Pharmacopoeia Committee of the G.M.C., in his presidential address advocated an Imperial pharmacopoeia as a step to an international pharmacopoeia, and he also made suggestions for reciprocal recognition of Canadian and British medical diplomas. In another section Professor Chikendon, of Yale University, advocated a proteid or nitrogenous diet, upon which he said persons could live much longer than had previously been thought possible. Dr. E. F. Bashford, Director of the Imperial Cancer Research Fund, referring to the investigations that have been made into the causation of cancer, said he was unable to hold out any hope of the immediate discovery of a cure for cancer.

French News.

(From the "C. & D." Paris Correspondent.)

OBITUARY.—A French pharmacist of distinction passed away last week, at the age of sixty-five, in the person of M. Louis Adrien Prunier, Director of the Central Pharmacy of the Paris Hospitals. He was also professor at the School of Pharmacy here, member of the Superior Council of the Paris University, as well as member of the Society of Pharmacy. M. Prunier had been a prominent figure in French scientific circles for many years past, and his death leaves a void that will be filled with difficulty, especially as regards pharmacy.

PHARMACISTS ON BOARDS OF HEALTH.—An amendment, presented by M. Cazeneuve (pharmaceutical M.P.), providing that a pharmacist shall always be included among the members of the new departmental and communal Boards of Health (*Commissions d'Hygiène départementales et d'arrondissement*) has been accepted by the Chamber of Deputies. The Senate modified some other details of the Bill, so that it had to be sent down again to the Lower House for ratification, but there is no doubt that it will become law in its present form in due course.

PHARMACISTS' ASSISTANTS complain that the new "weekly rest" law only secures them two half-holidays a week, and not the whole holiday held out in Clause I. The "Corporative Action"—a new rival offshoot of the "Syndicat de Préparateurs"—has discussed the subject and named a commission "to approach the public authorities" with a view to having Clause V. rescinded. According to an article in a local journal (the "Eclairer"), evidently inspired by the Syndicate, the failure of the movement in favour of the Sunday closing of pharmacies at Nice during the slack summer season was due to two pharmacists only. The Assistants' Association at Marseilles have printed and posted notices announcing to the public the name and address of a pharmacist who has refused to close on Sundays and *fêtes* at midday during the summer.

DOCTORS AND PHARMACISTS.—A qualified pharmacist studying for the medical diploma, M. Pax-Salvat, entered into an engagement to form a partnership, as soon as he had obtained his M.D. qualification, with M. François, a pharmacist, and paid the latter 80*l.* deposit. M. François, being subsequently informed of the illegality of a partnership between a doctor and a pharmacist, refused to carry out the agreement. He offered M. Pax-Salvat partnership as pharmacist only, and offered to refund the 80*l.* M. Pax-Salvat refused, and sued him for 400*l.* damages. The Lyons Tribunal of Commerce gave a verdict in favour of the defendant, pointing out that an agreement contrary to law is null and void. The curious point is that although French law forbids these medico-pharmaceutical partnerships, no penalty appears to be attached to the infringement of the law in this respect.

EXPERT CHEMIST.—Particulars are now available of the conditions for the diploma of "expert chemist" recently voted by the Chamber of Deputies, as the result of the exertions of a little group of the French pharmaceutical M.P.s led by M. Cazeneuve, Professor at the Mixed Faculty of Medicine and Pharmacy of Lyons. After a due period of study and the passing of certain examinations (the exact conditions of which are to be fixed later on by a decree of the Superior Council of Public Instruction), this diploma will be granted by the Superior Schools of Pharmacy and the Mixed Faculties. It will be a "State" (or official), as distinguished from a "University" (or purely scholastic), diploma. A certain number of expert chemists will, it is considered, be required for the proper enforcement of the recent Food-adulteration Acts, and although the diploma is not limited to pharmacists, M. Cazeneuve makes no secret of the opinion that the pharmacists are distinctly indicated as the future expert chemists, "existing as they do in every town, having a professional equipment which enables them to carry out scientific works, and possessing the independence necessary to the rôle of expert" (or analyst in legal cases).

ASSURANCE AGAINST DISPENSING-ERRORS.—A curious case in this connection has been tried before the Le Puy Bench. A pharmacist "counter-prescribed" chlorodyne to a patient

for stomach-cramps, but by error handed him a bottle of "caustic and corrosive liquid" (of which the exact nature is not defined by the judgment). The chemist was prosecuted for (1) delivering a compound medicament without prescription contrary to Article 32 of the Law of Germinal; (2) for homicide by imprudence. He was found guilty on both counts, and condemned to pay 400*l.* to the deceased's family. As he was insured (in "La Providence" Co.) against damages for dispensing-errors, he claimed the sum from the company. They refused to pay, pleading that had not the pharmacist contravened the Law of Germinal he would not have incurred the pecuniary responsibilities. The Court, however, pointed out that the company had engaged itself to repay the costs of "pharmaceutical errors," and that the act which caused death was the handling of the wrong bottle. Had chlorodyne been delivered no claim would have been made. The Magistrates accordingly found for the pharmacist, with costs. The judgment has been appealed from, for a somewhat extraordinary and amusing reason. The victim, Garmin, was a bigamist. The damages were to be payable to "his wife." The first spouse presented herself to collect the money. The company, fearing that No. 2 would call later, and that the payment would have to be made twice over, decided to carry the case up to the Court of Appeal.

A SAVANT AT HOME.—A Parisian weekly ("Femina") publishes an amusing sketch of M. Henri Becquerel, one of the discoverers of radium. It reads:

You know who he is—M. Becquerel? A great *savant*, but for whom, perhaps, radium would not yet be discovered. He belongs to the Academy of Sciences, and all his ancestors were *savants*. So, of course, he worships his family. What worries him is that his grandfather, Antoine-César (who fought in the Peninsula in Napoleon I.'s time as officer of artillery) was a very tall man; that his father, the famous physicist, was half a head taller than himself; that he is shorter than his father; and that his son, who has just left the Civil Engineering School (Ponts et Chaussées), is an inch or two shorter still. But what matters an inch or two if the activity of the brain-cells augments from generation to generation. Mme. Becquerel is the daughter of a rich civil engineer, M. Lorieux, elegant, rather majestic, very fashionable, well known in the social world of official science. The Becquerels live in a spacious private mansion, rue Dumont d'Urville, handsomely furnished in the Empire style with middle-class comfort. There you may see all the family relics and ancestral portraits in oil, bronze, and plaster. Once at home, M. Becquerel troubles no more about polarisation and uranium. There is no laboratory in the rue Dumont d'Urville; he only works at the Museum. There he keeps the cracked tubes and broken vessels which once served for the manipulations of his ancestors, and which are family relics, like the portraits at the rue Dumont d'Urville.

"**SUBSTITUTION.**"—M. Canonne, proprietor of the "Valda" lozenges, was unsuccessful in his action, brought in the Bourges Police Court, against the Central Society of Pharmaceutical Products of Moulins-sur-Yèvre (Cher) for imitation of trade-mark. Having learned that the society in question manufactured menthol and eucalyptus lozenges similar to his own, M. Canonne requested M. Bruneau, pharmacist at Paris, to order from them 2 kilos. of "Valda lozenges." M. Rodillon de Chapette, manager of the Society, acknowledged receipt of M. Bruneau's order, and replied, "We will send you at once 2 kilos. of lozenges 'genre Valda.'" The invoice was made out for "2,100 lozenges, strong, small size, Val." A second order was sent for "2½ kilos. lozenges Valda, strong, small size, as before," and a second package was sent and invoiced "2,500 lozenges, menthol and euc., strong." A third order and invoice were worded in the same terms as the second. The expression "Pastilles Valda" was written on the label of one of the packets, but M. Rodillon de Chapette explained that this was done by a girl packer without his knowledge or consent. The Court accepted as "probable" M. Rodillon's explanation of this (the only proved use of the word "Valda"), and the judgment also pointed out that Valda lozenges are sold in special boxes and always in the same size and strength, whereas the Society's lozenges are sold loose or in paper packets and of various dimensions and dosages. It qualifies M. Bruneau's order as "apparently inexact, but really insidious," and holds that the label was added "in entire good faith and without any idea of fraud."

South African News.

(From our own Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

BENEVOLENCE.—Messrs. Southall, Bros. & Barclay, Ltd., Birmingham, England, recently contributed, through their South African representative, Mr. Hurst, a guinea to the Benevolent Fund of the Pharmaceutical Society of Cape Colony.

WRECKAGE.—A number of tins of benzine and a quantity of hard paraffin (white) have been washed ashore at Woodstock recently, and fishermen hawked them round the shops for sale at low prices. As a result a fire occurred in some premises in Woodstock, owing to benzine being used for the stove in place of paraffin. The superintendent of the fire-brigade subsequently issued a warning to those in possession of benzine of the danger of using such a highly inflammable product for stoves.

A RAILWAY-RATE WAR is in progress in South Africa between the Cape Colony and Natal. The trouble apparently arose through what the Natal people call a "secret agreement" between the Cape Colony and the Transvaal for the carriage of goods to Johannesburg. Natal alleges that the "agreement" takes an unfair advantage of that Colony, and the opinion is openly expressed by Natal journals that the Colony will do its best to thwart the scheme. The newspaper controversy has become rather acrimonious, and shows little sign of abatement.

THE GOVERNMENT OF CAPE COLONY, after blundering efforts to strike out a new line for itself without warning or the necessary machinery to carry it out, has now condescended to deliver ordinary oversea catalogues and printed matter free. The Government started to tax every piece of printed matter transmitted per book-post mail to the extent of 7d., and thus transgressed the unwritten laws of ordinary commercial usage. Finding what a hubbub this action raised, the tax dropped to 1d. per packet, provided the packet weighed under 2 lb., and now the whole business has been stopped, and British, American, and other merchants have received permission to mail a catalogue in the ordinary way of trade. So British manufacturers may now send out their catalogues giving pictures of their packed goods, etc., to South African clients, and the mail office on the other side will really deliver it free if the ordinary mail rate is paid. "This is a great concession," writes our Cape correspondent sarcastically, "and it is to be hoped that you appreciate it."

FOREIGN IMPRINTS.—The placing of British and American imprints on local packed goods has gone on apace of late years in South Africa, and it is safe to say that scarcely a druggist exists in the larger centres without an oversea name and address among the stock-in-trade. The wholesale concerns have their own depots in England and America, and it would be difficult to discriminate between *bonâ-fide* lines, whether really put up in Great Britain or South Africa; indeed, it is more than possible that the wholesaler is well within his commercial rights. With the smaller concerns trying to follow the examples of their larger *confrères*, it should be pointed out that placing fictitious English or American names and addresses on locally produced goods is an offence against the Merchandise-marks Act. There is, of course, no legitimate reason why South African firms should not put up as many lines as they can, be the firm a large or a small one, but there is every reason why they should be compelled to keep within the line of commercial decency.

DUTY ON PILLS AND TABLETS.—As it is understood in some quarters that pills and tablets packed in hundreds may be

imported into South Africa within the Customs Union at the *ad valorem* rate of 25 per cent., prominence is given to the following letter addressed to our Cape correspondent by the Controller of Customs, Cape Town:

Office of the Controller of Customs,
Cape Town, July 30, 1906.

Pills or Tablets of Open Formula in Hundreds.

I have the honour to acknowledge the receipt of your letter dated the 25th instant in connection with the duty leviable on pills under item 31 of the tariff, and beg to reply as follows:

Pills imported in bottles not exceeding 100 pills will not ordinarily be taken to bring them under item 31, but it must be understood that in order to avoid payment of duty under this item they must be imported in the packages, duly labelled, in which they are usually sold retail to the public over the counter without alteration or diminution of the contents.

In order to make this matter quite plain, and so prevent a different interpretation being placed on item 31 of the tariff, a circular embodying the above will be issued to the ports.

I have the honour to be your obedient Servant,
(Signed) A. H. WILSHERE,

Controller of Customs.

DISINFECTANTS IN BULK.—The "Cape of Good Hope Government Gazette" for July 13 contains a list of disinfectants which conform with the approved standards issued under Government Notice No. 838 of 1906, and which may therefore be entered as "Disinfectants in bulk" and are dutiable at 3 per cent. *ad valorem*, a rebate of the whole of the duty being allowed when such disinfectants are the produce of the United Kingdom. The list is as follows:

Liquid.

| | |
|--------------------------|-----------------------------|
| Acme | Kerol |
| Cannon's fluid | Kynol |
| Carbolated creocide | Law's fluid |
| Carbolic No. 5 | Lysol |
| Chrysone | Mykrol |
| Creolin (Pearson) | Odamin |
| Crephol | Omaha |
| Cyllin | Pearson's antiseptic |
| Cyllin (sea-water) | Quibell's fluid |
| Cyllin (new) | Radium |
| Dog Brand | Ross & Co.'s fluid |
| Eueryl | Senitine |
| Feuilina | Snowdol |
| Findlay's fluid | Star (Lennon's) |
| Fowler & Son's fluid | Steele-Murray & Co.'s fluid |
| Hayward's fluid | Tahor |
| Ialine A | Terganol |
| Ialine (Pioneer Gas Co.) | Union fluid |
| Izal | Zotal |
| Jeyes (ordinary fluid) | |

Solid.

Chloride of mercury (Bi)

Natal.

JULY CUSTOMS RETURNS.—The July Customs returns show value of imports 672,890*l.*, compared with 762,763*l.* last year; value exports 606,265*l.*, against 716,303*l.*; value of rough gold exported, 102,148*l.*; Customs revenue, 70,639*l.*, compared with 65,485*l.*

Transvaal.

A POISONOUS PLANT.—While digging trenches at the new prison at Pretoria on July 30, eight Chinamen ate some roots of a poisonous plant. Three of the men have died.

"THE ADVENTURES OF CLAY FISK" is the title of a six-penny book published by John Leng & Co., Ltd., of London and Dundee. It contains a series of "tall" American stories, some of them very amusing, written by Mr. Walter MacEwan and reprinted from the "People's Friend." Mr. MacEwan is a qualified chemist, and is employed with Messrs. May, Roberts & Co., of Clerkenwell Road, London, E.C.

TENDERS FOR OLIVE OIL.—Tenders are invited by the Egyptian Ministry of Finance for the supply of about 181 cwt. of pure olive oil. Tenders, which are obtainable from Lieut.-Colonel Western, C.M.G., R.E., Queen Anne's Chambers, Westminster, London, S.W., should be marked "Offre pour la fourniture d'huile d'olive pure" and addressed to "S.E. le Ministre des Finances du Gouvernement Egyptien, San Stefano (Ramleh)," where they will be received up to September 20.

Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of the following, among other societies:

Central Pharmaceutical Association, N.Z.
Canterbury (N.Z.) Pharmaceutical Association.
Otago Pharmaceutical Association, N.Z.
Pharmaceutical Society of New South Wales.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Tasmania.
Pharmaceutical Society of Western Australia.

Victoria.

PURE FOOD ACT.—Last week we mentioned that the Central Board of Health of Victoria had adopted regulations, to come into force on October 31, requiring that all proprietary medicines sold in Victoria containing more than 10 per cent. of ethyl alcohol or any one of a number of narcotic and some other drugs (enumerated) must be clearly labelled that they contain these particular things. The sale is not to be prohibited, but the purchaser of the medicines is to be informed that they contain the particular drug. The date fixed for the regulations to come into force was earlier than had been expected, but the matter has since been discussed by the Foods Standards Committee, and a recommendation will be made to the Central Board of Health that the regulations shall not come into force until December 31, and it is highly probable that this will be adopted. The question was raised in the Foods Standards Committee whether the committee would be exceeding its powers in preparing a list of medicines to be so treated. The point was placed before the Solicitor-General, who reports that the committee will only be exercising the fringe of its powers in publishing such a list. This is a matter of considerable importance, and will naturally influence the deliberations of the committee in future. The President of the Central Board of Health (Dr. Norris) has been in communication with the Commonwealth authorities, and when once such lists are prepared, and the regulations finally adopted, the Commonwealth authorities will be inclined to bring the Commonwealth regulations under the Commerce Act into line with the regulations of the State of Victoria under the Pure Food Act. This will affect all imports, while the Victorian regulations only touch the internal trade.

THE FOODS STANDARDS COMMITTEE OF VICTORIA consists of several professional men, professors at the University in medicine, etc., the chief medical officer of the city of Melbourne, four representatives of commercial interests—Mr. Charles Pleasance, ex-Lord Mayor of Melbourne and ex-President of the Pharmacy Board, Mr. A. R. Bailey, ex-President of the Pharmaceutical Society, and two representatives of the food-industries. The procedure is generally that typewritten statements of the subjects for discussion are forwarded to members of the committee, who make inquiries as widely as possible to ascertain what would be the effect of proposals and what suggestions can be reasonably made. These are then fully discussed, and the recommendations of the committee are made with full knowledge of commercial conditions. The recommendations have then to be adopted by the Central Board of Health. While there is no wish on the part of the Central Board of Health to interfere unduly with commerce, steady pressure will be exercised to secure greater protection for the health of the community in any direction in which it can be obtained. Dr. Norris, the President of the Central Board of Health, has shown himself very reasonable, ready to receive representations from those affected, but at the same time firm in his determination to improve the health conditions of the community.

CAPITOL.—This hair-pomade has been examined by Kochs and found to consist of lanoline (63 parts), water (14.5 parts), and menthol (22.5 parts).

Demerara Doings.

(By the "C. & D." Correspondent.)

LIME-GROWING.—Mr. W. L. Bennett, who has been visiting the Colony and the West Indies on behalf of a London syndicate with a view to ascertaining the possibilities of lime-growing on a paying commercial basis for the manufacture of citric acid, has concluded his investigations. Although, naturally, Mr. Bennett is reticent on the subject, it is understood that his report as to British Guiana will not be unfavourable.

CHEMISTS' ASSISTANTS.—Quite recently a smart-looking Britisher, said to possess the Minor qualification, came to British Guiana in search of employment. He was not successful in obtaining a situation, and is now an overseer on a sugar-estate, which is somewhat analogous, as a haven for the unemployed, to joining the army. Considering that there are fewer than a dozen British chemists' assistants employed at the present time in the whole of the Colony, this is not the place for a man to come to in search of employment.

THE VRIEDENHOOP DRUGGING-CASE, in which a man, Lawrence, is charged with having unlawfully administered poisonous drugs to a young woman, named Kellman, is still *sub judice*. In the course of his evidence accused said that when the woman visited him he noticed that her lower lip was red and that she spoke with difficulty; also that she complained of her throat troubling her. He stated that he handed her some sweets, and she subsequently became ill. He admitted having bought 2 grains of a certain drug as well as some pomade, but denied having administered any drug to the woman.

RUBBER.—At a meeting of the Agricultural Board for the purpose of considering the experiments now being carried on in connection with rubber-growing, it was stated that much of the rubber now exported to England as samples was believed to contain a mixture of resin and sap. The trees had been "bled" far too freely, and the commodity had been reported on unfavourably. Great care had to be exercised in settling terms and conditions on which grants might be issued to "bleeders," so as to do nothing to retard the rubber-industry, and, on the other hand, to avoid creating anything like a monopoly on a very large scale.

SINCE his emancipation, the West Indian negro, with few exceptions, avoids working on sugar-plantations; the planter, therefore, has to go farther afield for labour. Coolies of Portuguese, Chinese, and East Indian nationality have all been tried, but the last-mentioned apparently give most satisfaction; for they are now imported by hundreds every year, and their welfare is looked after by an efficient Immigration Department. With the East Indian coolie has come into the Colony a disease about which, until comparatively recently, very little had been heard—namely, ankylostomiasis. Out of 466 indentured immigrants who arrived by the *Clyde* from India this year, no fewer than 285, or 61 per cent., were found to be suffering from this disease. An almost equally large proportion of coolies who were brought by three other vessels was similarly affected, totalling 55 per cent. for the whole season's shipments. Considering the constant medical supervision under which the immigrants live, often for a considerable time before embarkation in India, it is a matter of no small surprise that the disease is not discovered there. Thymol in 30-grain doses is a favourite remedy for the removal of the ankylostoma parasite, the dose being followed shortly afterwards by a brisk purgative. The extreme solubility of thymol in alcohol makes it dangerous for the patient to indulge in alcoholic stimulants; indeed, some deaths have occurred when "toddy" (a fermented beverage obtained by "tapping" coco-nut trees near their apex) has been imbibed by those under treatment. Other remedies for ankylostomiasis are beta-naphthol in 10-grain doses, male-fern, and areca-nut. Owing to the fact that people other than East Indians have recently been found in the Colony to be suffering from the disease, it is not too much to say that considerable uneasiness exists both in medical and lay circles.

American Notes.

(From our American Correspondents.)

SCHOLARSHIPS.—Several State pharmaceutical associations provide one or more scholarships in different schools and colleges of pharmacy. This is particularly done in Texas, New Jersey, and Massachusetts. The Illinois Association at its meeting this year decided to provide a scholarship in the Illinois College of Pharmacy in each congressional district, which means ten or twelve in all.

A. P. D. DOCK.—When the dock now being built at Detroit is completed, Messrs. Parke, Davis & Co. will have one of the finest shipping wharves on the Detroit River. A large plot of reclaimed land is being levelled off in front of the main offices, and will be beautified as a park. Facilities for the landing of the largest ships that sail the Great Lakes will be afforded by the new dock. Several thousand dollars are being spent on this improvement.

A UNIQUE CONTEST was made a feature of this year's meeting of the Minnesota Pharmaceutical Association. Members submitted several pharmacopoeial products which they had made at home: these were then subjected to examination, and prizes were given for the best articles. Two of the substances were solution of iron chloride and solution of iron subsulphate, both of which were subjected to the determination of iron. Bismuth and ammonium citrate and pills of iron iodide were also included in the list.

RE-REGISTRATION.—Most of the pharmacy laws of America provide for what is called "re-registration." This means that every pharmacist must renew his registration with the State Board of Pharmacy every year or every two years, at a cost ranging in the different States from \$1 to \$2. The idea is to get money with which the Board of Pharmacy may enforce the pharmacy law and carry on a vigorous prosecution of offenders. Recently a firm of Chicago lawyers, claiming that the re-registration feature of the Illinois law was unconstitutional, has sought to get the pharmacists of the State to make an attempt to secure its repeal and thus save themselves the cost of annual renewals.

CHICAGO PHARMACISTS have for years had a great deal of trouble with a druggist by the name of Brendecke. Brendecke is a confirmed seller of narcotics in defiance of the law. He has been arrested again and again, but he pays his fines and still continues his nefarious business. He has been expelled from membership of the Chicago Druggists' Association, but this does not hurt his feelings in the least. Fortunately, the State Anti-narcotic Law gives the Board of Pharmacy power to revoke the registration-certificate of any druggist convicted the second time of violating the statute, and the Board hopes soon to be able to carry a second conviction through all the upper courts in order that Brendecke may be put out of business completely.

EDUCATION.—When the Graduation-requirement Law was first enacted in New York State, it was resolved to "recognise" only those colleges which provided total instruction amounting to 750 hours of work, representing two terms of twenty-five weeks each. A few weeks ago, at a joint conference of the Board of Pharmacy and the representatives of the State Education Department, it was decided to increase these requirements. Next year, accordingly, colleges will be required to give at least 900 hours of work, while 1,000 hours will be demanded two years hence. By this method it is hoped to work up to the minimum membership requirements of the American Conference of Pharmaceutical Faculties—500 hours of lectures and 600 hours of recitations and laboratory-work. The Conference, by the way, represents the twenty-five leading schools and colleges of the country, and will hold a very interesting meeting this year in conjunction with the A.P.A. during the first week in September.

PAYING TELEPHONE-CALLS.—Druggists in America are very much interested in telephone-matters for the reason that pay instruments are located in their stores. The pharmacists of New York, after years of agitation, have finally succeeded in getting the telephone company to use slot-instruments, which compel the customer to drop his nickel or dime in the box before he can secure his connection from "central." A 25-per-cent. commission will be granted the druggists under this arrangement. In Philadelphia the

druggists have obtained a new contract from the telephone company which gives them an average commission of about 30 per cent. on their telephone-receipts. Slot 'phones are also used notably in Chicago, Detroit, and Atlanta, Ga. Where they are not employed in drug-stores, the pharmacist has to pay from \$75 to \$150 a year for his telephone. Slot-machines, on the contrary, mean a profit of an equal or a larger amount.

India and the East.

(From "C. & D." Correspondents.)

CHEAP JAVA QUININE TABLETS.—A Government resolution, dated June 25, empowers local authorities in Java to facilitate the sale of quinine to the people at a low price. The tablets are to be purchased from the Bandong quinine-factory, and the total cost for each district is not to exceed 250 florins.

THE COCAINE ORDINANCE, which passed the second reading in the Legislative Council of the Straits Settlements some two months ago and was referred to Committee, appears to have been dropped for the present. It may, however, be brought up and passed through the final reading at any moment.

OPIMUM-TRADE IN CHINA.—The British missionaries have petitioned the Governor of Hong-Kong to appoint a commission to ascertain the best method of checking and, if possible, abolishing the use of opium, at the same time asking his Excellency to direct that instruction be given in the public schools respecting the evil and debasing results of the opium-habit. The Governor has promised to give the petition his careful consideration.

TAXING ANILINE DYES.—Some time ago the Amir of Afghanistan forbade the import into his territory of carpets coloured with aniline dyes, and now the Kashmir Durbar has decided to charge the heavy duty of 45 per cent. on all aniline dyes at the frontier, and at a certain district within the frontier to confiscate and at once destroy them. It appears the use of the cheap dyes by Indian artisans and handicraftsmen constitutes a danger to the manufacture of genuine Indian art-ware, for which the vale of Kashmir is renowned.

STRAITS PHARMACEUTICAL ASSOCIATION.—Mr. Hugo J. M. Ellis, of Ellis & Co., American import agents, Singapore, gave a dinner to the members of the Association at Raffles Hotel, Singapore, on July 21. A fully representative gathering sat down to an excellent repast purveyed in the best Raffles style. A special feature was the *menu*-card, which was got up for the occasion with an autograph photo of Mr. Ellis on the reverse side. Mr. James McKenzie proposed "The health of our Host," which was drunk with musical honours. In replying, Mr. Ellis thanked the members of the Straits Pharmaceutical Association for the genuine support they had accorded him ever since he commenced business in Singapore, and he wished the Association every success.

"INTOXICATING DRUGS" DEFINED.—A Press notice was issued by the Finance Department of the Government stating that it was intended to introduce a Bill on August 10 (see *C. & D.*, August 18, p. 293) for the amendment of the Indian Excise Act so as to extend the definition of "intoxicating drugs," the sale and possession of which can be regulated under that Act, and which at present are confined to hemp drug. "The object of this is to get power to regulate the traffic in cocaine, which is spreading to an undesirable extent. This traffic is already regulated under the Excise Acts of Madras, Bombay, and Bengal, which give a wider interpretation of the term 'intoxicating drugs' than the India Act does, and in Burma and the United Provinces, where the India Act has been supplemented by special local legislation." The present measure will enable similar steps to be taken in the remaining Provinces to which the India Act applies, chiefly the Punjab and the Central Provinces.

THE APPLICATION of a lotion of liq. plumbi subacet. mx., aq. dest. 3j., has been found by a correspondent of the "*Lancet*" always to allay the irritation caused by harvest-bugs, if one has patience.

Colonial and Foreign News.

THE VALPARAISO EARTHQUAKE.—The accounts of the catastrophe at Valparaiso state that it is difficult to attend to the wounded owing to the destruction of the chemists' shops. A telegram from Lima gives in a list of the buildings destroyed those of the English, American, and German hospitals and Daube & Co.'s wholesale drug-stores.

THE NEW SWISS PATENT LAW.—The new regulations regarding patents which were placed before the Confederate Boards by the Federal Council on July 17 enact that no patents will be granted for chemical processes for the manufacture of medicines or foodstuffs or for pharmaceutical preparations, foods, or drinks. The object of excluding these from the patent-right is, it is said, to prevent them becoming dearer.

CULTIVATION OF MEDICINAL PLANTS IN SWEDEN.—An institute for the cultivation of medicinal plants has been established at Landskrona, Sweden, the object of which is (1) to undertake experiments in growing various medicinal plants in order to discover the most suitable for cultivation, and (2) to impart instruction in the planting, gathering, and preparation of medicinal plants. Mr. von Post, a pharmacist, will probably be the director, and the idea is to make the Institute popular among the general public and school children by giving demonstrations, lectures, etc. Many specimens of drug-plants are already in hand, and a museum and library will be features of the Institute. The scheme is supported by adequate funds, owing to the munificence of Consul O. Ekman, and there is every prospect that it will become a success.

PERFUMERY FOR THE EGYPTIANS.—A Board of Trade report states that although Germany has only so far captured a small share of the perfumery-trade with Egypt, several houses are endeavouring to obtain a firmer hold on the Egyptian market. A very large Arab business is done at from 5f. (3s. 11d.) to 12f. (9s. 6d.), a dozen—size of bottle, excluding the stopper, 9 cm.—though in some instances the figure reaches as high as 50f. (1l. 19s. 6d.). The German travellers in perfumery come over twice a year, the first visit being arranged so as to fall some six or seven months before the Arab feast of Bairam, the second one being a month or so before the same date. With every gross the purchaser obtains one dozen gratis, and in the case of an expensive article he will receive the proportionate allowance on six dozen. Five per cent. is usually offered for cash within thirty or sixty days.

PHARMACY IN HOLLAND.—The fifty-fifth general meeting of the Nederlandsche Maatschappij ter bevordering der Pharmazie was held on July 24 and 25 at Zwolle, under the presidency of Mr. J. Polak. The proposal that a committee should be appointed to discuss the chemistry of foodstuffs at future annual meetings was agreed to. A resolution regarding the introduction of a uniform system of payment to pharmacists by sick-fund societies, as well as the institution of uniform prices for supplies by pharmacies to the sick-fund societies, was also accepted. Other proposals, which the President intends presenting to the Government in the form of a special petition, refer to the regulation of the trade in drugs, medicines, and poisons by those outside pharmacies, dispensing by doctors, and prohibition of the sale of secret remedies. Mr. C. Bergacker was appointed President of the Society, and Amsterdam was chosen for the next meeting.

REGULATING PRESCRIBING.—According to the "British Medical Journal," the Vienna Medical Council is preparing a Bill to be brought before the meeting of the Union of Medical Councils with a view to regulating the present way of dispensing written prescriptions. The following propositions have been made: Every prescription shall be valid only for three years from the date it is written, and after the date must be added "Ne repetatur tres annos post." Prescriptions containing strong drugs are to be valid only for one year. The fact of the presence of strong drugs should be made known by the affix "Ne repetatur post unum annum." In order to prevent abuse of prescriptions the name and abode of the patient are to be inscribed. Persons suspected of the morphine-habit should be reported to the Central Board of Apothecaries, which in its turn will inform the druggists, warning them to be careful in dispensing pre-

scriptions for such persons. Prescriptions signed by foreign medical men will be valid only in health-resorts and on the frontier.

THE DOCTOR AND THE DRUG-STORE.—The proprietorship of a drug-store by a doctor in practice was the subject of a case which was heard on July 29 before the Criminal Court at Bartenstein, Allenstein, Germany. The medical man in question had in 1903 notified the police that he was carrying on a drug-store. He sold it later, however, to a lady, as the Medical Council, which went into the matter at the instigation of the Pharmacists' Association, regarded his action as derogatory to the dignity of the medical profession. In spite of the sale, the business was carried on as before, and the doctor consulted on the premises. The prescriptions were dispensed by the young lady, who received payment for them. Finally, a charge was brought against the pair of breaking the regulations regarding the sale of medicines, for a patient had been sold a powder which proved to be a mixture of aloes and potato starch. The Assize Court dismissed the case, but the Criminal Court sentenced the medical man and his assistant to a fine of 10s. each for the illegal sale of medicines.

THE SHAH AND HIS MEDICINE-MEN.—In a recent issue of the "Apotheker Zeitung" there is an entertaining account (for the truth of which we cannot vouch) of the struggle for supremacy which has been going on, it is said, for the past ten years between the European physicians of the Shah of Persia. When the present Shah ascended the throne he brought with him to the Court an English doctor who had been in his service for many years in Tabriz. This led to rivalry with the doctor already at the Court who had been appointed by the French Embassy. The tale is told of the triumph of England for a time and ultimately of France. When France obtained full sway, continues the "Zeitung" narrator, "the prescriptions were taken away from the old German Court pharmacy and given to the French pharmacy, until one fine day the Shah almost lost his life through a mistake having been made in the preparation of a medicine." A French army pharmacist with high salary was then appointed, "who, however, during his two years' stay has not stirred a finger, and all the prescriptions for the Shah are now, without exception, dispensed at the German pharmacy again." The moral, if any, is, we presume, that a German physician and German pharmacy are the ideal conditions for his Imperial Majesty.

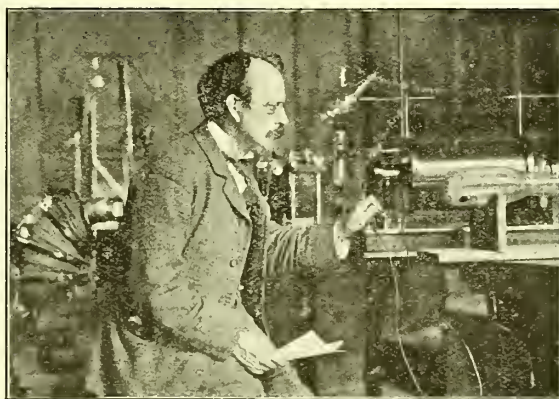
PHARMACY IN ROUMANIA.—New regulations regarding the granting of pharmacy concessions in Roumania have recently been issued. From these we learn that new pharmacy concessions are only to be granted by competition to one certain person for a certain place. To be eligible for candidature it is necessary to possess a pharmacist's diploma (licentiate or magister) from the Roumanian Medical Faculty or from an approved foreign faculty. The candidate must be either a Roumanian or a naturalised subject. He must have a clean sheet, so far as police records are concerned, and must have served the required time in the army. He must also have served for two years in Roumania after having obtained his diploma, and pay a fee of 100f. Pharmacists who have obtained a pharmacy by competition may, if they have not violated any of the sanitary regulations, apply for a new concession, also owners, leaseholders, or managers of a pharmacy, after they have ceased to be such. The competition is public, and consists of four examinations. In a written examination detailed description has to be given of natural vegetable or animal remedies, their origin, character, active principles, and chemical combinations, etc. The second examination (also written) is on some subject in pharmaceutical chemistry. There are also a practical examination to determine the identity and adulteration of an organic or inorganic chemico-pharmaceutical product of the Roumanian Pharmacopœia, and a *viva-voce* examination on the recognition and description of herbal remedies, their use in pharmacy, their changes and adulterations. Four hours each is allowed for the written examinations. The practical examinations must be completed in eight hours. Every candidate receives a certificate for each examination. The candidates whose total examination-results show them to be eligible are then classified according to these results. The classified competitors then have the right, in their order, to choose any place mentioned in the list of vacancies.

What is Matter?

THE problem has vexed sages for centuries, and it would be hard to say that we are nearer solution now than they were in those far-off days when St. Paul said "things which are seen are not made of things which do appear," this expressing the Greek philosophers' views of the constitution of matter. The most favoured theory at the present time is that which Professor J. J. Thomson, F.R.S., of the Cavendish Physical Laboratories, Cambridge, and Lord Rayleigh's successor at the Royal Institution, has expounded in the latter hall of science in a series of lectures entitled the "Corpuscular Theory of Matter." The lectures were delivered on Saturday afternoons in March and April, and these notes of them are the gist of what our representative gathered from lecture to lecture. The professor demonstrated more than he spoke. First he proved to sight the existence and material nature of corpuscles, which are supposed to be the basis of all matter, in the cathode rays of a Crookes tube, and other demonstrations showed that the corpuscle is something common to all matter, and probably about 1,700 times smaller than the hydrogen atom. By the visual detection of corpuscles by cloud formation and water deposition in a supersaturated atmosphere so small a number of corpuscles as twenty or thirty can be spotted, whereas a cubic millimetre of gas at the pressure of a millionth of an atmosphere (as in a Crookes tube) contains a hundred thousand million corpuscles, and even this number is hardly to be detected by chemical means. They are of everyday occurrence, and are given out when metals are raised to a red heat or exposed to light, especially to ultra-violet light, and by radioactive bodies. There is reason to believe that they are emitted by the sun. The mass of the corpuscle having been found, the next thing is to investigate its actual size. The Professor showed, by means of the dynamical expression for the kinetic energy produced when work is done upon a moving particle, that the charged corpuscle behaves as if its mass were bigger than that of the uncharged corpuscle, because while it is in motion electric and magnetic waves proceed from it, necessitating a certain amount of work additional to that required to supply the ordinary kinetic energy. In fact, practically the whole of the mass of the corpuscle is electric, and if it could lose its charge it would cease to have any mass. This conclusion is interesting from a philosophical point of view. It is seen that the mass of the corpuscle is due to energy in the field around it, which, theoretically, extends to an infinite distance. It therefore gathers mass from any place which supplies energy, and part of a mass here may be at Sirius. The old dogma that two bodies cannot at the same time occupy the same space is controverted, for every body may thus occupy the space of every other body. The experiments also supply a means of deducing the radius of the corpuscle, and it is found that its dimensional volume is 10^{-13} cm., while that of the atom is $\frac{1}{10^{-3}}$ cm. In other words, the Professor said, the volumes are to one another as that of an exceedingly fine pellet to the lecture-theatre of the Institution. Carriers of positive electricity similar to the corpuscles, the negative units, have not been found; those which are found are always of atomic dimensions, and have masses varying with their source, unlike the negative corpuscles. The alpha particles from radium, however, are positive carriers which are constant in mass. The particles from polonium may also have the same mass. This suggested that these particles may be the unit for positive electricity, but Viehn found particles in the discharge tube of half their mass. The explanation for the lack of success in the search lies, Professor Thomson suggests, in the difference of distribution. While the negative electricity is concentrated on the extremely small corpuscle, the positive electricity is distributed throughout a considerable volume. An atom would thus consist of minute specks, the negative corpuscles, swimming about in a sphere of positive electrification, like raisins in a parsimonious plum-pudding, units of negative electricity being attracted towards the centre, while at the same time repelling each other. What actually happens was shown by a

model, in which magnetised needles, floating on the surface of water with their negative poles upwards, represented the corpuscles, and a large magnet, with its positive pole suspended over the centre, gave the effect of the positive electrification. The interest in the systems of rings which result as the number of negative units is increased lies in the fact that there is a rise and fall in the stability of the arrangements and a recurrence at intervals of the same type of arrangement, analogous to that governed by the Periodic Law.

Another confirmation of the theory of corpuscular arrangements within the atom is that it corresponds with the facts of the Periodic Law. On examining the electric properties of these systems it is found that each series commences with a strongly electro-positive system, the following systems being less and less positive and then more and more electro-negative, the sign of the electrification changing abruptly with the beginning of the next series. This corresponds remarkably with the electric properties of the atoms arranged according to the Periodic Law. Fluorine, for instance, which is at the end of a period, is strongly electro-negative. Sodium, at the beginning of the next, is strongly positive. Rutherford has shown that the radium atom is stable for about one thousand years, and it is only at the end of this time that it liberates energy. This collapse is probably due to the fact that the system of corpuscles comprising the atom becomes unstable when the velocity of rotation of its constituents gets below a critical point. They must lose velocity because they are in motion, and lose energy by radiating electric waves. It is true that a pinch of radium contains enough energy to drive a liner across the Atlantic, but the rate at which it gives it out is so small that it would need 100 tons to get the liner across in six days. That is the essential point. Professor Thomson believes that other atoms contain large stores of energy, but the problem of tapping them is one of the most formidable



PROFESSOR THOMSON WORKING IN HIS LABORATORY AT CAMBRIDGE.

(From a photograph taken by Mr. W. H. Hayles.)

difficulty. All matter has in geological times gone through temperatures and stresses compared with which laboratory processes are mere child's play. Professor Bumstead found that, on the most favourable interpretation, the amount of energy to be obtained from the atom is about equivalent to the work done by a diminutive fly crawling up a window pane. Experiments on the secondary radiation from metals exposed to Röntgen rays (which is an emission of corpuscles) show that the heat given out by lead and zinc is only about one-thousandth part of a degree Centigrade.

Lord Rayleigh, in an experiment illustrating the corpuscular theory of valency, found that if a steel ball be allowed to move in a horizontal line between two magnetic poles of similar sign there are two positions of greatest force, one on either side of the poles, where the ball is in stable equilibrium. If the number of similar magnetic poles be increased to four, there are still only the two positions of equilibrium outside the poles, the other two, now within, apparently neutralising one another. In chemical language, this is expressed by saying that the two valencies satisfy each other. Thus the

first experiment represents the condition of a dyad atom like oxygen in the compound $\text{H}-\text{O}-\text{H}$, and the second two atoms of the same element forming $\text{H}-\text{O}-\text{O}-\text{H}$. Similar agreements with chemical theories are found as the number of pairs of similar magnets is increased. Professor Thomson also dealt with the determination of the number of corpuscles in the atom. By at least three experimental methods this number can be determined, and although none is conclusive, all show that the number is not a very large multiple of the atomic weight.

At the final lecture Professor Thomson dealt with Zeeman's work on the effect of magnetic force on lines in the spectrum. The result at which he arrived is that, since the spectral lines are due to vibrating corpuscles and all the bright lines are affected by a magnetic field, the number of lines given by an atom cannot be less than the number of corpuscles. He quoted a series of relations established recently by Barkla between the atomic weights of the elements and the amount of secondary Röntgen radiation given out, and proceeded to speak of the conduction of electricity through metals, of which the corpuscular theory supplies an explanation analogous to that of the ionic hypothesis. So far Professor Thomson's hearers had, as with a microscope, got an insight into the constitution of things, but there was still a curtain between them and the mystery. As he well said, the object of the corpuscular theory is not to pretend to give an adequate account of atomic structure, but rather that it may be suggestive in what Joule declared to be the most promising of all lines of physical investigation—the connection between atomic weights and atomic properties.

Summer Outings.

In East Anglia.

THE annual outing of the staff of Messrs. De Carle & Son, chemists, Norwich, was held on August 16, when the party travelled to Yarmouth, where they were entertained at the Savoy Hotel. The morning was fine, but the afternoon proved showery.

A Grimsby Holiday.

ON August 16 the annual excursion of the members of the Grimsby and District Chemists' and Druggists' Association was held. Owing to the unsettled state of the weather only eighteen members and their friends took advantage of the arrangements made by Mr. Dewing and the Hon. Secretary. The members of the Association who were present included Messrs. Ashton, Ellis, Johnson, Kershaw, Sneath, Watson, Whitaker, and Heely (Hon. Secretary). The long drive to Tealby was succeeded by an excellent tea, after which the party visited the beautiful park and grounds of Bayons Manor, thrown open by the courtesy of Mr. E. T. d'Eyncourt. A short inspection of the church followed, and the subsequent drive home was thoroughly enjoyed by all.

At Liverpool.

A PARTY of gentlemen representing the Oldham and District Pharmaceutical Association and consisting of Messrs. James Lees, E. Walters, T. Baker, J. A. Buckley, J. Shaw, F. Newby, Lord Crabtree, H. Whittle, Stoddard Cockcroft, W. Gartside, and C. Gartside, visited the works of Messrs. Evans Sons Lescher & Webb, Ltd., at Liverpool, on August 21. They were cordially received by Sir E. Evans, and were conducted through the warehouses of the firm by Mr. Thos. Davies, the party afterwards being taken in hand by Mr. Dalrymple and taken over the new laboratories at Fleet Street, where the various manufacturing processes going on were lucidly explained, the details proving of much interest to the visitors. A number of stills distilling oil of cloves and oil of sandalwood, the making of compressed tablets, the gelatin-coating of pills, and a new machine for filling capsules with dry powders, were particularly noticed, and all admired the splendid equipment of the works. In the evening the party dined with Mr. Davies and Mr. Shacklady at the Adelphi Hotel, the visitors conveying through the firm's representatives their appreciation of the treatment extended to them.

Personalities.

ALDERMAN W. B. TRICK, chemist and druggist, a director of Lewis & Burrows, Ltd., who has just been appointed a justice of the peace, will in all likelihood be the next Mayor of Stoke Newington.

COUNCILLOR J. DAWES-WHITE, chemist, Kingsland Road, London, E., fell while alighting from a motor-bus outside his premises last week. He was conveyed to the Metropolitan Hospital, where he was found to be suffering from a dislocation of the knee and also a fracture. An operation was performed, and Mr. Dawes-White is progressing favourably.

The Week's Poisonings.

OF the eleven deaths by poisoning which have been reported during the week two were misadventures. Charles Bates (35), a painter, of North Kensington, and Henry Powell (51), a ship's fireman, of Trafford Park, Manchester, both drank spirit of salts, one in mistake for lemonade and the other for whisky. The scheduled poisons used by the suicides were carbolic acid and prussic acid. Carbolic acid was taken by Emily Townshend (34), a servant, of Seaforth, who was unable to take situations owing to ill-health. The acid was obtained for exterminating vermin, and was kept on a top shelf in the kitchen. Mrs. Rebecca Rigby (71), of Spon Street, Coventry, died from carbolic-acid poisoning on August 22. The acid was obtained from Mr. F. Bird, chemist and druggist, of Spon Street. An inquest is to be held.—The prussic acid was taken by Harold Cooke (20), described as a chemist. He had been in the employ of a firm of chemists at Birmingham, but resigned owing to slackness of trade. He was depressed at being out of work and, although another berth was obtained for him, took the poison and died on Wanstead Flats.—The unscheduled poisons used were hydrochloric acid, ammonia, salts of lemon, and zinc sulphate. The acid was taken by a woman named Wood, living at Dartford.—Eliza Davis (38), a married woman, of Wolverhampton, on July 21, swallowed a pennyworth of ammonia. A verdict of suicide while temporarily insane was returned.—Alice Burtenshaw (34), a labourer's wife, of Shirley, Southampton, after suffering from consumption for two years, ended her troubles with salts of lemon. The jury returned the usual verdict, the Coroner stating, it is said, that the chemist was much to blame for serving the deceased's daughter with the poison.—Jane Thurgood, a Dunmow farmer's wife, who had been treated at Guy's Hospital for cancer in the cheek, drank nearly a whole bottle of lotion of sulphate of zinc, which she had been given to apply to the wound.—Charles Henry Chappell (61), of Reading, who had been employed as a traveller by a manufacturing chemist of Sheffield, was found dead in a lane with a bottle and jar which had contained poison.—An "irritant substance" was said to be the cause of the death by suffocation of Mabel Moore (20), a domestic servant, of Mansfield.—In Fairlight Glen, Hastings, on August 21, a lady visitor discovered the dead body of a man with a deep gash in the throat and an empty prussic-acid bottle at his side.

LEFT THE TRIBE.—The programme of the Crewe Cottage Hospital Carnival and Fête contained the following advertisement of "Mavor, Cash Chemist": "I have bought Dale's two shops, and am spending 400*l.* in alterations. For thirteen years I served Boots, Ltd. I served them well. They treated me well. By October 1906 my shops at Hightown and West Street, Crewe, will be neat and clean and tidy, and I'll be ready to serve you well and quickly."

DOMINICAN LIME PRODUCTS.—Among the exports from Dominica during 1905 were 13,564 barrels of green limes (1904, 8,162 brls.), 642 barrels of pickled limes (1904, 865 brls.), 164,475 gals. of raw lime-juice (1904, 234,972 gals.), and 124,625 gals. of concentrated lime-juice (1904, 83,727 gals.). Reduced to gallons of raw juice the amount exported was 1,772,981 gals., compared with 1,291,047 gals. in 1904. Other exports included essential oil of limes valued at 1,947*l.*, as against 1,160*l.* in 1904, also 54 bales of bay-leaves, being 186 bales less than in the previous year.

Births.

AUSTEN.—At Sheffield, on August 18, the wife of John Austen, pharmaceutical chemist, of a son.

COOK.—At Greenways, Bulmer Street, Maritzburg, Natal, on July 24, the wife of William Cook, chemist and druggist, of Messrs. Turner & Co., Pietermaritzburg, of a son.

Marriages.

CLARK—ASHBEE.—At Christ Church, Gloucester, on August 15, by the Rev. J. Milner, assisted by the Rev. Philip Cave Moyle, Henry Burton Clark, chemist and druggist, of Beetham & Clark, Promenade Villas, Cheltenham, to Florence Annie, daughter of the late Mr. Henry Ashbee and of Mrs. Henry Ashbee, Fairlawn, Gloucester.

RUTTER—WILE.—At Christ Church, Newcastle-on-Tyne, on August 21, by the Rev. W. C. Stainsby, Wilfred Rutter, chemist and druggist, Newcastle-on-Tyne, to Catherine (Kitty), eldest daughter of Mr. John Wile, of Newcastle-on-Tyne.

THEAKSTON—SUTCLIFFE.—At All Saints' Church, Halifax, on August 14, Thomas Walburn Theakston, pharmaceutical chemist (for several years on the staff of Messrs. Dinneford & Co., Bond Street, W., now manager of the Bond Street establishment of Messrs. Mornay Frères, Ltd.), to Monnie, daughter of Mr. Henry Sutcliffe, Stafford House, Halifax.

Deaths.

ATKINSON.—At George Street, Snaith, on August 16, Mr. George Atkinson, aged sixty-nine. Mr. Atkinson carried on business in Doncaster for many years as a chemist and druggist. He retired some years ago, taking up his residence in Snaith, of which place he was a native. He took very little part in public affairs, but was deeply respected by those with whom he came into contact.

BOUCHER.—At Hood Bridge, near Totnes, on August 16, as the result of a motor-accident, Mrs. Julia Boucher, widow of the late Mr. John Boucher, pharmaceutical chemist, who for many years was a member of the firm of Ferris, Townsend, Boucher & Co. (now Ferris & Co., Ltd.), wholesale and retail chemists and druggists, of Union Street, Bristol. Mrs. Boucher was sixty years of age, and lived at Tyndall's Park Road, Clifton. She had been on a visit to Ashburton, and while motoring with her son-in-law and two daughters an accident occurred, the motor colliding with Hood Bridge, which spans the Dart and the Ashburton Railway line. Mrs. Boucher was precipitated over the bridge and instantly killed. The deepest sympathy is felt among a large circle of friends with the family of Mrs. Boucher, who leaves several grown-up children. One of her sons, Mr. J. M. Boucher, pharmaceutical chemist, is the well-known Gloucestershire tennis champion, and Miss Boucher, the lady tennis champion of Gloucestershire, is one of her daughters. The accident was the subject of a coroner's inquiry, held before Mr. Sidney Hacker, at Totnes, on August 18. Evidence was given by Mr. J. M. Boucher, Miss Ellen Constance Boucher, Mr. Evan Percival Lewis (Mrs. Boucher's son-in-law), and others. The jury returned a verdict of accidental death, and expressed their sympathy with the relatives. The body was subsequently removed to Clifton, and the funeral took place on August 20.

DEANS.—The death is announced of Mr. George Augustus Deans, pharmaceutical chemist (Ireland), Maitland, South Africa. Mr. Deans, who was thirty-two years old, served his apprenticeship with Messrs. Davidson & Leslie, chemists, Castle Place, Belfast; and after passing his examination and spending a period of service with Messrs. Dobbin, of North Street, went to South Africa and established the successful firm of Messrs. Righthouse & Deans in Cape Town, with branches in Johannesburg, Maitland, and Somerset Strand. Lately Mr. Deans's health gave way, and a few days ago his friends in Belfast received news of his death at Ferndale, Maitland.

EDEN.—At St. Aldate's, Oxford, on August 11, Mr. Thomas Eden, chemist and druggist, aged sixty-four.

PEAKE.—At Dover, on August 17, Alderman Henry Peake, J.P., pharmaceutical chemist, aged seventy-nine.

Mr. Peake, who was the *doyen* of Dover chemists and the President of the Local Association, was apprenticed to pharmacy in London. He was an assistant for some time in the Metropolis, and afterwards at Ryde, before starting in business at New Bridge, Dover, in the latter part of 1853. Mr. Peake carried on business there until 1881, when he retired, selling his business to the late Mr. Wyles.

The business is now carried on by Mr. Fred Long. Alderman Peake was one of Dover's eldest and most respected citizens, and immediately the news of his death was made public the flags upon the principal buildings of the town and around the harbour were lowered to half-mast as a mark of the respect in which he had been held. He entered municipal life in 1872 as a Councillor for the Town Ward, being re-elected in 1875, and three years later he lost his seat. However, he again put up in 1881, and secured his seat, being again returned in 1884, 1887, and 1890, while in 1892 he was elected to the Aldermanic Bench. After being re-elected in 1898, he severed his connection with the Council four years later. In 1889 Alderman Peake became a member of the Dover Harbour Board, a position he held until the time of his decease, while he represented the Castle Ward upon the Kent County Council from 1889 to 1898. He was connected with many public bodies in Dover, including the Dover Gas Co., of which he was a director. At one time he was treasurer to the Orphan Home for Girls, Folkestone Road, and he was a member of St. Mary's Burial Board, a Land-tax Commissioner, and additional Commissioner of Property and Income-tax. The late Alderman was buried in the family vault at Cowgate Cemetery, Dover, on August 22, close to the spot where his forefathers, all Cinque Ports pilots, had watched the Channel for generations. At St. Mary's Church a short service was held, the Rev. Canon Barham officiating. Among those who attended at the church and at the cemetery were, besides the near relatives, the Mayor and members of the Corporation, the Board of Guardians, the Harbour Board, Magistrates and Clerk, the principal directors and officials of the Gas Co., and the following Dover chemists: Messrs. Bottle, Brown, E. W. Ewell, Forster, Long, Hambrook, and E. Thompson. The local secretary (Mr. R. M. Ewell) was unable to be present through illness.

TAYLOR.—At Bedford, on August 15, Annie Elizabeth Phillips, the beloved wife of Mr. James B. Taylor, pharmaceutical chemist, Bedford.

WILLIAMS.—At 27 South Street, Isleworth, on August 12, Mr. Thomas Williams, chemist and druggist, aged forty six.

BRANDOL, a remedy for burns examined by Kochs ("Apoth. Zeit."), turned out to be only a solution of picric acid.

AMONG THE IMPORTS INTO GÖTENBURG last year were 2,071 tons of acids (1904, 982 tons), alkali 4,695 tons (1904, 3,662 tons), bleaching-powder 1,796 tons (1904, 1,435 tons), potash salts 426 tons (1904, 392 tons), and sulphur 8,531 tons (1904, 8,300 tons).

CAMPHOR-REFINERY BURNED.—A fire occurred on August 12 at the camphor-refinery of the Chemische Fabrik von Schering, Charlottenburg, near Berlin, the building being entirely destroyed. The same building was burned down only two years ago.



Scientific Progress.

Temperatures under this heading are on the Centigrade scale

Hæmatin Crystals for Medico-legal Use.—At a recent meeting of the Paris Academy of Sciences, M. Sarda and M. Caffart communicated a new method of preparing hæmatin crystals founded on a method described by M. Lecha-Marzo de Valladolid. The method consists in gently evaporating a portion of the suspected liquid upon a slide, then adding successively one drop of chlorine-water, one drop of pyridin, and one drop of ammonium sulphide. The cover-slide is next carefully applied, and numerous crystals of chloro-hæmatin are obtained, of a rhomboidal form, of a deep reddish-brown or scarlet colour.

Alkaloids in Strychnos-leaves.—Lotsy ("Apotheker Zeitung," 1906, 475) has examined the leaves of various species of *Strychnos* in order to determine whether alkaloids are present in them. He has found strychnine in both the young and old leaves of *Strychnos Tieuté*. He also found brucine and strychnine in the young leaves, but not always in the old leaves, of *Strychnos Nur-vomica*, but neither alkaloid in the leaves of *Strychnos Laurina*. He believes that on cutting the leaves the amount of strychnine increases, while the brucine diminishes. Often no strychnine was found in the leaves in the early morning, whereas in the afternoon it was present. Most of the leaves also contain the alkaloid strychnine.

Improved Kjeldahl Nitrogen Apparatus.—At the Birmingham meeting of the British Pharmaceutical Conference Mr. F. H. Alcock read a paper on the determination of nitrogen in some common drugs by the Kjeldahl-Gunning process (see *C. & D.*, July 28, p. 180). The apparatus Mr.

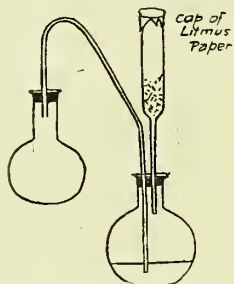


FIG. 1.

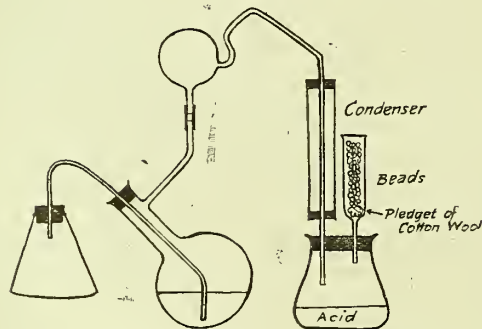


FIG. 2.

Alcock used is shown in fig. 1. In the discussion some of the speakers referred to modifications of the Kjeldahl nitrogen-apparatus which had been found useful. Mr. J. F. Liversidge sketched on the board the apparatus shown in fig. 2. This form has been found to trap perfectly the ammonia, and is designed especially from that point of view. These sketches are useful as supplementing the Conference paper.

A New Essential Oil.—Baker and Smith have named a hitherto undescribed species of *Leptospermum*, *L. Liversidgei*, and have examined the essential oil therefrom. From the leaves they obtained a yield of 0.227 per cent. of an essential oil having a sweet lemon odour. They found that the crude oil is insoluble in 10 volumes of 70-per-cent. alcohol, but soluble in 1 volume of 80-per-cent. alcohol. The optical rotation is $+9.2^\circ$, the refractive index 1.4903, and sp. gr. 0.8895. On fractional distillation 20 per cent. distilled below 170° , having sp. gr. 0.8624, refractive index 1.4774, and optical rotation $+32.5^\circ$. From 195° - 225° , 30 per cent. was obtained, of optical rotation $+5.7^\circ$, sp. gr. 0.8892, and refractive index 1.4892. From 225° - 235° , 20 per cent. was obtained, of optical rotation -1.1° , sp. gr. 0.9048, and refractive index 1.4945. From 235° - 273° , 12 per cent. of a fraction consisting chiefly of

a sesquiterpene was obtained. This fraction had sp. gr. 0.9024, and refractive index 1.5052. The composition of the oil is approximately as follows: Citral, 35 per cent.; geranyl acetate, 5.55 per cent.; geraniol, 9.74 per cent.; dextropinene, 25 per cent.; sesquiterpenes, etc., 25 per cent.

Conundrum Column.

The Piscatorial Friar

In last week's issue was a veritable puzzle to most of the competitors. Only two have given "Rhubarb"—the correct solution. To the gentlemen who sent the following we therefore award 2s. 6d. each:

Rhubarb is always a welcome thing,
Whether in tart, jam, or in physic;
But in a man's thumb if the "barb" be fixt,
The "rhu" is express'd on his phiz(sic!).

IVY GREEN.

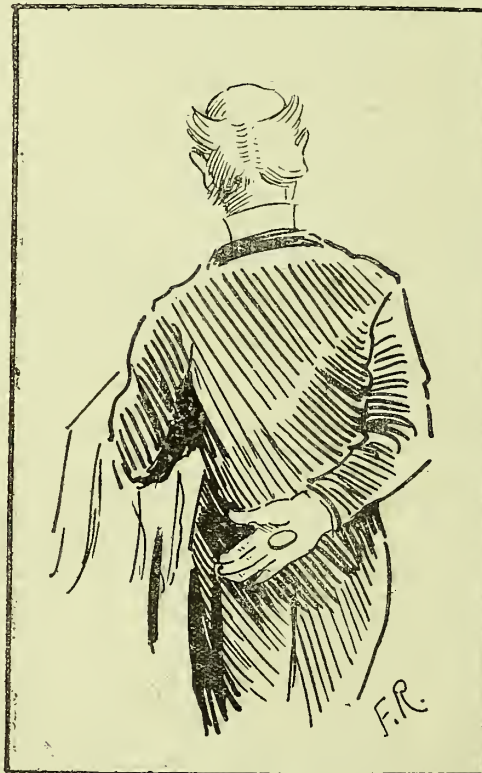
And why that look upon his face,
Also the hook so out of place?
But, sure, my thoughts do not misplace,
Nor wander in this present case—
'Tis "Rue barb."—R. JOHNSON.

Several thought "friars' balsam" was intended, and many guessed "digitalin." Some suggested "caoutchouc," one "gaff-in"—which is rather far-fetched for "caffein," and another "aloe barb." Two of the digitalin verses are good enough for reproduction. They are as follows:

Why wears our friend that look of pain;
Why are his cheeks so pale?
He's got a fish-hook in his thumb,
Which makes that digit ail.—H. H. COOPER, JUN.

There are good fish in the sea;
I think you'll all agree
That to snare them you have to go a-sailing;
But before you "set out"
It may come about
That your catch is a—"digitalin."

HARRY ASPINALL.



Next Week's Puzzle

should prove comparatively easy after the last. Postcards in rhyme from subscribers or members of their families, their assistants, and their apprentices are requested to elucidate the pharmaceutical article represented by the above sketch.

Observations and Reflections.

By XRAYSER.

Window-dressing

is a topic which tempts to prolixity, but it is a subject fully worthy of discussion. Modern chemists' shops are much handsomer than the old-fashioned ones were, they cost a great deal more, and it is the spacious window which offers the most likely means of recouping the extra rent and fitting-expenses. I do not believe that as a rule chemists make enough out of their windows. In any case, *Noblesse oblige*. The possession of a fine shop-window in a good thoroughfare imposes a sort of moral obligation on the occupier, for the sake of his neighbours, the municipality, and the passers-by, not to mention himself, at least to keep it neat, and if possible to make it attractive. The primary use of a window is of course to show what manner of trade is carried on in the shop within, and I am a little sorry to see sometimes a tendency to abandon the useless but explanatory coloured carboys. The second idea, or perhaps this comprehends all others, is profit. And it must be remembered that this may be gained more certainly sometimes indirectly than directly. The severe exclusion of all sundries, perfumery, and photography may be good policy here and there; but openings for the cultivation of strictly professional pharmacy are very rare. Mr. W. J. Brown describes a window of what may be termed

The Impressionist Character,

and he tells us that he has found satisfactory results from it. The plan is good enough for occasional treatment, but I cannot help thinking that the suggestive remarks about "traders who know no better" and "tradesmen who cannot tell the difference" which figured on Mr. Brown's explanatory tickets, had better be omitted. If aimed at a rival, there are sure to be people who will sympathise with the victim; if there is no particular opponent in view, the energy is wasted, like kissing the air.

Which is the More Effective

from a selling point of view, a windowful of one article, or a variety of exhibits? The arguments in favour of either plan are too obvious to be recited, and the chemist who changes his window once a fortnight may reasonably try both. One thing, however, may be borne in mind, especially by those whose shops are in busy thoroughfares. It is that a hundred people glance at a window to one who examines it. In any case "Amateur W. D." is undoubtedly correct in his dictum that "it needs a good display of well-written cards to attract sales." The cards are indeed the things which make the difference between a paying and a non-paying window. They must quote price. The things shown are almost always things that can be done without, and it is generally the question of cost which decides the casual customer. It is not the difference between $5\frac{1}{2}d.$ and $6d.$ which keeps a buyer out of the shop, but the difference between $5\frac{1}{2}d.$ and nobody knows how much. Then comes the matter of writing tickets. Very good instructions for writing tickets were given last week, and following them will furnish a pleasant occupation. But having written your ticket do not display it unless you are a heaven-born calligrapher, which it is a hundred to one you are not. Nothing looks worse in a stylish window than home-written tickets.

Prescription signs

for weights and measures are dealt with in an interesting annotation in last week's "Lancet," in which the origin of the figures 5, 3, and 9 is explained in a manner differing considerably from most of the previous guesses with which I am acquainted. These have been, to say the least, questionable. The 5 and the 3 have been traced to Egyptian hieroglyphics and to Greek monograms, but without direct evidence. Briefly, the "Lancet" writer states that in ancient and mediæval manuscripts the tendency to abbreviate was natural and frequent; that among the more usual abbreviations were the Latin terminations such as "-us," "-que," and "-et"; that for "-us" a long f with a little u crossing it was first adopted, and that this ultimately became only two dots, like our colon (:), representing the top and bottom of the f; that "-et" came to be written; and that this deviated into 5, which, says the "Lancet," "we can readily see is only a careless method of writing a semicolon without raising the pen"; that this "ligature" 5 gradually came to indicate any abbreviated termination, so that "o5" was the abbreviated form of "ounce"; that when printed text arose the 5 became a z, but that before this change the symbol "o5" had been slurred by hasty writing into 3; and that 9 was simply a ligature representing the Greek letters *sr*. These deductions are, it may be presumed, results of modern

Paleographic Research.

It is well known that the study of old manuscripts has occupied many scholars, both in this country and on the Continent, and certainly the "Lancet" would not publish statements of this kind unless they could be amply justified historically. That 5 and z were marks of contracted endings is common knowledge. We have a familiar remnant of this practice in the term "viz." for "videlicet." But it may be doubted whether unaided intellect would "readily see" that the 5 is "only a careless method of writing a semicolon without raising the pen"; or that 3 was a result of hasty writing of "o5." The :, the ;, and, I think more frequently than either, the . were undoubtedly used to indicate contractions. So also was a figure resembling 7; and it seems more probable that the 5 might have been derived from that last sign than from the semicolon. It is stated, too, by some authorities that "oz" was an abbreviation of the Italian "onza," and that it was commonly written with the tail of the z encircling the two letters. This might quite easily have resulted in a z with a top and tail thus forming our 3.

Ominous.

A French paper informs the world that Professor Behring's new consumption-cure is now almost ready for sale, and will shortly appear under the name of "Tuluse." Apparently it is to be a secret remedy. The name may not be significant in German or French, but it had better be modified for the English market, for Behring has a reputation Tuluse even here.

The Purple of Thyatira.

I confess that I had always supposed that the purple (probably the dyed wool) sold in apostolic days by Lydia of Thyatira was similar to the Tyrian purple which was the really aristocratic article in her time. The quotation given by Mr. Stewart Hardwick from Hastings's "Dictionary of the Bible" is, however, authoritative, and I am grateful for the correction. It may be permitted to hope that some others were as ill-informed as myself, so that the space used in consequence of my error may not have been devoted to my improvement only.

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Editorial Comments.

Not Very Brave.

THERE has been of late somewhat of an epidemic of petitions for Royal charters. There are differences of opinion as to the advantages of possessing a charter, one of the arguments against acquiring a charter being the stereotyping of the objects of a society which renders it a difficult matter to effect alterations needed by the effluxion of time. Registration under the Companies Acts seems to offer sufficient legal standing to societies founded with altruistic objects. The Chartered Societies Bill which is before Parliament may be the cause of the activity in seeking charters, as the Bill seeks to protect the titles of members of chartered societies. Be this as it may, there are quite a number of bodies who think so much of the possession of a Royal charter as to petition humbly for one and to risk willingly the expenditure of large sums of money for fees. The British Optical Association is a case in point. This is an association that has been established for some years, and has apparently carried on useful educational work among opticians. The Association's petition for a charter has been refused on account of medical opposition of a particularly inept kind. Another

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Analysis, &c., on
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JEWSBURY & BROWN'S MINERAL WATERS.

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petition which will probably meet with a similar fate is that of the National Association of Medical Herbalists. The herbalists are a comparatively humble body. Their shops are generally in poor neighbourhoods, and their places of business are neither got up in a high professional style nor in the glittering and attractive manner of modern drug-stores. Herbalists apparently cultivate a business in native vegetable products, which are somewhat neglected by pharmacists, and their shops are doubtless a convenience to those people who make no secret of their preference for herbal remedies. The business of a herbalist has quite a respectable antiquity. In London, at any rate, the herb-sellers of Cheapside antedated the establishment of doctors and surgeons as organised bodies. In subsequent years the herbalists seem to have fallen back in the race for the privilege of healing the sick, and it was not till the nineteenth century that an organised body was formed. This body—the National Association of Herbalists—after being established some years, resolved to petition for a charter with a view to improving the status of herbalists. The Association holds examinations in such subjects as anatomy and physiology, pharmacy, botany, and minor surgery. The Association, it should be noted, is not seeking a legal status by promoting a Bill in Parliament, but is merely petitioning for a charter. The Privy Council, it will be remembered, asked the Pharmaceutical Society for their views on the matter, and at the August Council-meeting a resolution was passed ordering the seal of the Society to be affixed to a protest. The councillors were left in the dark as to the wording, but we learn that the protest recites the following as the main grounds for rejecting the petition for a charter:

That the petitioners cannot give any evidence of competence to adequately perform the duties they propose to undertake.

That chartered bodies are already in existence both for teaching and examining in botany, materia medica, and pharmacy.

That the objects proposed are calculated to confuse and mislead the public in regard to the compounding and dispensing of medicine.

That the granting of the powers and privileges asked for would tend to defeat the purposes of the Pharmacy Acts.

The protest cannot be looked upon as a very brave one, and it is scarcely dignified for a powerful body to object to the claims of another society on such shadowy grounds as are here shown. The Pharmaceutical Society are, however, quite safe: they have nothing to fear in the way of reprisals. But there is another body petitioning for a charter—the Society of Chemical Industry—and we are waiting to see if the Pharmaceutical Society will protest against the granting of a charter to them. Discretion will probably prove the better part of valour in this case, as the Society of Chemical Industry is not such easy game as the herbalists.

Probing the Unknown.

THE problem of analytical research is complicated considerably when one has absolutely no data to go upon. It is this that moves the researches of public analysts or other workers in our Colonies and Dependencies more fascinating than the carefully prepared problems of the laboratories in more civilised communities. True it is that seldom does the Colonial worker contribute much definite knowledge regarding the chemistry or toxicology of the native mineral or plant which he has investigated, but he has opened up a new field, and has provided a vista of possibilities, for the imagination of the enthusiast at home. That the first result is negative in the majority of cases is not surprising, for the work has to be perfunctorily performed with imperfect

appliances and in a short space of time. The Colonial analyst has no time to dally with the problems set to him. When a poisoning or a suspected poisoning occurs, the thing that is impressed upon the investigator is that he must get out his results as quickly as possible, and a systematic examination of any one substance for months, or even for weeks, is practically out of the question. This is not conducive to accuracy, and doubtless the virtues or vices of many native plants of which we are ignorant remain hidden from science, to its detriment. For some time this bitter cry has been echoed in the annual reports of Mr. C. F. Juritz, Senior Analyst for the Cape Colony. It is reiterated in his latest report (that for 1905), where he insists that it will need the appointment of an analyst specially to investigate the plant poisons and drugs of the Colony to put matters on a satisfactory footing. The toxicological and chemico-legal analyses undertaken by Mr. Juritz and his assistants during 1905 at the Cape Town and Grahamstown Laboratories included twenty-five cases where the suspected cause of death or illness was poison. In only five of these cases was poison definitely indicated; in all the others the result of examination was either negative or indefinite. To show what is at times expected of an analyst in connection with the investigation of such cases Mr. Juritz gives a list of the various articles taken from one person charged with attempted murder, and forwarded for analysis. Two packages were received. One contained five parcels of coffee, milk, and other substances suspected to contain poison; the other contained over fifty packets, comprising a number of unidentified herbs, hair, finger-nails, pebbles, beads, flint, eggshells, ginger, asafetida, eucalyptus-leaves, fat, powdered lavender, hyraceum, buttons, rice, coffee-beans, orange-peel, resins, gum benzoin, wormwood, seeds, beans, buchu, fungus-spores, Epsom salt, chlorate of potash, alum, sugar, starch, common salt, and bismuth subnitrate. A native woman died at Idutywa, and specimens of *Hamanthus natalensis* were forwarded as being identical with a bulb administered to the deceased by the person charged with culpable homicide. In the organs of the deceased woman a yellow non-crystallisable substance was found which possessed properties similar to yellow non-crystallisable scales extracted from the bulb of *Hamanthus natalensis*. Decoctions of the fresh bulb equivalent to from 14 grams to 32 grams of the bulb produced severe emesis in a dog. The same effect was produced by the administration of a grain of the active principle itself. Rabbits took the decoction without any inconvenience, and $\frac{1}{3}$ grain of the active principle produced no effect whatever on a strong vigorous mouse. The conclusion arrived at was that the plant is not directly poisonous, but that the violent straining accompanying the emesis produced by the bulb acted fatally. A male native at Fort Beaufort and a female at Cala were poisoned by *acanthera*, the toxic properties of which were established in former reports by Mr. Juritz. A number of children having died mysteriously at East London, the district surgeon attributed the deaths to the poisonous nature of the water. Around the well from which the children drank grew silver wattle, oleander, and moonflower, the leaves whereof were in process of decay in the water. On arrival at the Laboratory the water had a very unpleasant odour of putrid decomposing organic matter, and deposited a voluminous sediment on standing. No alkaloids or glucosides were, however, extractable from the water, although a considerable quantity of chlorophyll and oily substance was removed by ether. The unsatisfactory nature of the evidence which is frequently all that can be supplied in connection with chemico-legal investigations is exemplified in another case at Mqanduli. Along

with the organs of the deceased woman the analyst received a parcel of roots and a portion of a plant. The former had been dug up by the man accused of having caused the death, and was said to be identical with that from which he had prepared a fatal decoction; the latter was said to have been the actual plant from which the fatal decoction had been prepared. The chemical tests showed that the roots and the plant sent were from quite different species. The portion of plant sent could not be identified. It contained 2 per cent. of a very acrid yellow resinous substance, as well as a non-crystallisable glucosidal substance. Physiologically it produced severe emesis in the dog. The root apparently contained a glucoside, the physiological effects of which it was impossible to trace owing to the small quantity available. A number of plant-materials were sent to the Grahamstown Laboratory for examination in connection with the death of a native at Mount Fletcher. These included a species of *Tephrosia*. According to Bentley, *Tephrosia toxicaria* is employed as a fish-poison, and it is suggested that the latter may be used as a substitute for digitalis, which it is said to resemble in physiological action. Another plant administered to deceased by a native, and stated by him to be *Mugumabela* or *Umnungamabele*, was identified as *Rhus discolor*, E. May., and it is worthy of mention that this plant is quite distinct from *Xanthoxylon capense*, Harv., which Smith identifies with *Umnungamabele*. Several species of *Rhus* are more or less poisonous and require very careful handling, as their juices frequently cause violent erysipelatous inflammation. Another plant said to have been administered by the same native proved to be a species of *Thesium*, which is slightly astringent and supposed to be harmless. None of these plants have been examined as to chemical or physiological properties, and they are all worth thorough investigation.

The Alkali-industry.

MR. FORBES CARPENTER, the Chief Inspector of Alkali-works, always manages to endow his annual reports to the Local Government Board with more interest than is usual in Blue-books. The chemical problems which come under the notice of the inspector and his assistants are generally of a complex description. This year, for instance, investigations have been made as to the conditions affecting the formation of ferrocyanides in sulphate-of-ammonia saturators. The salt, known technically as "blue salt," makes itself apparent in the blue tinge which sulphate of ammonia occasionally acquires after being fished from the saturator. Sometimes the blue colour is so pronounced as to render the product unsaleable. It was known that the immediate cause was the concurrent presence in the saturator-liquor of a salt of ferrous iron and a ferrocyanide. The presence of ferrous iron might arise from a variety of sources, but it was not so easy to account for the presence of a ferrocyanide. The result of experiments made at works and in the laboratory confirms the hypothesis of Leriche, which represents the ammonium ferrocyanide as formed by interaction of ammonium cyanide or hydrocyanic acid, volatilised from the still, with ferrous oxide or sulphide, separated in the saturator during periods when the liquor has become neutral or alkaline through deficiency of acid or from some other cause. The presence of cyanogen compounds in ammoniacal liquor is one which has also engaged the attention of the inspector and his assistants, as the quantity of hydrocyanic acid in the gases of the ammonia-saturator may attain serious importance. It is found that ammonium polysulphide and ammonium cyanide cannot coexist, so that a ready means is available

for rendering the volatile cyanogen constituent innocuous. Cyanogen compounds are notably found in the case of coke-oven works, where the temperature reached is very high, cyanogen being essentially a high-temperature product. The chief source of sulphate of ammonia is the gas-industry, but a marked extension of the application of ammonia-recovery plants to coke-ovens is noticeable in the figures given in the inspector's report. The total production of sulphate of ammonia for 1905 is placed at 269,114 tons—23,000 tons more than the previous year.

The year 1905 shows an increase in the number of works registered under the Alkali Acts, and reflects greater prosperity in the alkali-industry. The number of works registered in the United Kingdom is 1,205—an increase of twenty-eight over the previous year. Of these works, seventy-three only decompose salt, the remainder being works carrying on processes which are scheduled under the Alkali Acts. There was only one prosecution during the year, and this was in the case of a sulphuric-acid manufacturer whose plant had been allowed to become disorganised. The depression which has characterised the arsenic-industry is passing away on account of the very materially enhanced price of the principal product, white arsenic. There are nineteen works producing arsenic, and although this is a smaller number than in the previous year, the output is larger—1,528 tons, compared with 976 tons in 1904.

The Employment of Children.

IN view of the fact that some pharmacists employ errand-boys part time, a certain interest attaches to the by-laws recently submitted by the London County Council for confirmation to the Home Secretary. The code is based on one prepared by Mr. Chester Jones, the Commissioner who held an inquiry into the matter last year. The latest code proposes that the by-laws be made under the provisions of Sections 1 and 2 of the Employment of Children Act, 1903, for regulating the employment of children and street-trading by persons under the age of sixteen years within the county of London, but exclusive of the City. As to the employment of children generally it is proposed that—

A child under the age of eleven years shall not be employed.

A child liable to attend school full time shall not be employed on days when the school is open in industrial work at home except between the hours of 5 P.M. and 8 P.M., nor on other days except between 9 A.M. and 12 noon and between 5 P.M. and 8 P.M., nor on Sundays.

Industrial work shall mean any work in which manual labour is exercised by way of trade, or for purposes of gain in making, altering, repairing, ornamenting, finishing, adapting for sale, or cleaning any article.

A child liable to attend school full time shall not be employed, on days when the school is open, for more than three and a half hours a day, nor (a) between 8 A.M. and 5 P.M., (b) before 6 A.M. or after 8.30 P.M.

A child liable to attend school full time shall not in any week in which the school is open on more than two days be employed for more than twenty hours.

A child liable to attend school full time shall not be employed, on days when the school is not open, (a) before 6 A.M. or after 9 P.M., (b) for more than eight hours in any one day.

A child liable to attend school full time shall not in any week during which the school is open on two days only or less be employed for more than thirty hours.

A child shall not be employed on Sundays except between the hours of 7 A.M. and 1 P.M. for a period not exceeding three hours.

A child shall not be employed in or in connection with the sale or delivery of intoxicating liquors except on premises where such liquors are exclusively sold in sealed vessels.

A child shall not be employed in any process carried on in a laundry to which the Factory and Workshop Act, 1901, does not apply.

A child under the age of twelve shall not be employed as a lather-boy or in any similar occupation in any barbers or hairdresser's shop.

In connection with this same matter, it is interesting to note that the Bradford Corporation are moving in a like direction. This Corporation has published by-laws which are likewise to be submitted to the Home Secretary for confirmation. They propose that no child under the age of eleven years may be employed in any industrial work whatever. No child attending school full time may be employed for more than twenty hours per week, and no half-timer for more than thirty hours. A full-timer may only be employed in a shop, or as messenger, between 5 P.M. and 8 P.M. on five days of the week, and either between 7 A.M. and 2 P.M. or between 2 P.M. and 9 P.M. on Saturday. A half-timer may only be employed either between 7 A.M. and 1 P.M. or between 2 P.M. and 8 P.M. on five weekdays, or either between seven and twelve or two and nine on Saturdays. A child exempt from school attendance may be employed daily between 7 A.M. and 8 P.M., with $1\frac{1}{2}$ hour for meals, subject to the proviso that on one day in each week employment must cease at 2 P.M., and that on one other day the evening time may be extended to nine o'clock. Notice is to be kept constantly exhibited in the shop specifying the day on which employment ceases at two and that on which the evening time is extended to nine. If objection is desired by any shopkeeper concerned, it must be notified in writing to the Home Secretary before September 17.

The Radium Discussion,

to which we referred last week, has advanced a little farther. Lord Kelvin has replied to his critics, claiming to have spent much time in assimilating Rutherford's "Radio-activity" in his desire to understand the subject. The part of Lord Kelvin's letter which concerns scientists most is the following :

As to the suggestion, made first, I believe, by Sir George Darwin about three years ago, and favourably received by Rutherford, Strutt, and others, that our present underground heat, and sun-light, and sun-heat are due to radium, I must, for the present, limit myself to two sentences: (1) Radium alone is quite insufficient, its duration as a source of energy being estimated by Rutherford (2nd edition, p. 458) as not more than a few thousand years ("The average life of radium is 1,800 years"). (2) The suggestion that in uranium, thorium, actinium, and other matter capable of being "transformed slowly into radium," we have at least a million times as great a store of energy as we may think we have in radium, practically available for sun-heat and underground heat, is not validly supported by any experimental evidence hitherto published.

The Hon. R. J. Strutt replies to this that "it is true that the actual radium now in existence has not done the work throughout, but that the supply of radium in the earth is maintained at a constant level by the production of fresh radium by uranium, contained in a small proportion in the rocks." He also asks Lord Kelvin the following poser: If the life of radium is only a few thousand years, how comes it that there is any radium at present in existence? Sir Oliver Lodge considers it would be wise to treat the question as open, to be settled by further investigation and discussion of laboratory facts, without undue insistence on weight of authority.

Bribery in Business.

The Bill which Lord Halsbury introduced into the House of Lords in 1903 for preventing corruption in business is among those that have in the present Session of Parliament received the Royal assent. The Bill has been verbally altered during its passage through both Houses, but the principle remains identical that any person, acting for another, who corruptly receives or offers a bribe in business transactions, exposes himself to heavy penalties, in the form

of either imprisonment or a fine. The Act comes into force on January 1, 1907, but prosecution cannot be instituted without the consent of the Attorney-General or Solicitor-General. The idea has been mooted that the Act will help to prevent the bestowing or reception of innocent gifts such as Christmas-boxes, but, as will be observed in the following section of the Act, the corruptness of the gift would have to be proved. The main section of the Act is as follows :

If any agent corruptly accepts or obtains, or agrees to accept or attempts to obtain, from any person, for himself or for any other person, any gift or consideration as an inducement or reward for doing or forbearing to do, or for having after the passing of this Act done or forborne to do, any act in relation to his principal's affairs or business, or for showing or forbearing to show favour or disfavour to any person in relation to his principal's affairs or business; or

If any person corruptly gives or agrees to give or offers any gift or consideration to any agent as an inducement or reward for doing or forbearing to do, or for having after the passing of this Act done or forborne to do, any act in relation to his principal's affairs or business, or for showing or forbearing to show favour or disfavour to any person in relation to his principal's affairs or business; or

If any person knowingly gives to any agent, or if any agent knowingly uses with intent to deceive his principal, any receipt, account, or other document in respect of which the principal is interested, and which contains any statement which is false or erroneous or defective in any material particular, and which to his knowledge is intended to mislead the principal;

he shall be guilty of a misdemeanour, and shall be liable on conviction on indictment to imprisonment, with or without hard labour, for a term not exceeding two years, or to a fine not exceeding five hundred pounds, or to both such imprisonment and such fine, or on summary conviction to imprisonment, with or without hard labour, for a term not exceeding four months, or to a fine not exceeding fifty pounds, or to both such imprisonment and such fine.

The Prevention of Corruption Act is only a short one, but it will strengthen the hands of the administrators of justice in dealing with offences which are too common in certain trades.

Unwashed.

[A newspaper paragraph is going the rounds to the effect that a Florentine "chemist,"—not a pharmacist, let us hope—named Cerboni, has not washed for thirty years, and to that he attributes his perfect health.]

Cerboni never took a bath,

Yet healthful look he wears;

For soapsuds fill his soul with wrath—

He never heard of "Pears'."

To cleanliness a deadly foe,

Against all soap he fights;

"Erasmic" clouds his mind with woe,

He runs if you say "Wright's."

"Oowana" gives him quite a shock;

He cowers with frightened look:

His grimy reason seems to rock

At thought of "Price" or "Cook."

Eye-strain.

Most chemist-opticians are fully alive to the fact that one of the most frequent causes of headache is defective vision. By correcting the visual defect the effects of the eye-strain disappear. Dr. Hinshelwood, in a paper on eye-strain which is reported in the "Lancet," points out that the worst cases are those in which astigmatism is present. The doctor divides the chief symptoms into two classes—(1) local symptoms, having reference to the eye itself and its appendages, and (2) those occurring outside the eye itself, the general symptoms. Apart from headache, other symptoms of eye-strain are sense of fulness and tightness in the head, giddiness, and insomnia. Eye-strain also produces local symptoms, such as congestion of the eye and of the eyelids. The

treatment consists in fitting the sufferer with proper glasses and instructing as to the intelligent use of the eyes. Dr. Hinshelwood has views on the province of the optician which are interesting as including also the general practitioner, other writers being careful to differentiate between the optician and the medical man—to the detriment of the former. We quote a few paragraphs of Dr. Hinshelwood's paper :

I wish to emphasise the point that the prescription of suitable glasses in these cases of eye-strain due to slight astigmatism is a proceeding of great delicacy, which can be successfully accomplished only by the specialist with a large experience of the peculiarities and idiosyncrasies of the human eye, and even this sometimes only with great patience and perseverance. The presumption of opticians seeking to deal with such cases is as absurd as that of the chemist who seeks not only to supply his customers with drugs, but also to diagnose and to treat their ailments. The eye is an exceedingly delicate organ, and immense damage is done by the prescription of glasses by those who are not properly qualified for the task. Every ophthalmic surgeon has experience of this, and the practitioner should clearly understand that an optician cannot possibly have the requisite knowledge for dealing successfully with the very delicate, and often very difficult, problems which cases of eye-strain frequently present. It is often a matter of great difficulty even to ophthalmic surgeons of large experience to discriminate between symptoms due to refractive error and those due to early stages of organic disease of the eye. A mistake in the diagnosis may lead to most disastrous results to the patient, and yet the public are invited to entrust the care of this most delicate of all organs into the hands of those who know absolutely nothing about the symptoms of disease in the eye or elsewhere. Let the medical profession beware of encouraging the public in the fallacy that the optician can distinguish between symptoms due to refractive error and those due to disease. This can be done only by those with a competent knowledge and long experience in diseases of the eye.

Those chemists who are in a position to know the extent of the knowledge of the general practitioner on refraction of the eye will not wonder that "ophthalmic surgeons of large experience" find it necessary to warn their fellow medical practitioners to be careful when dealing with astigmatism cases.

More Sleep.

[A discussion has been going on in the medical and lay papers the net result of which seems to be to show that we need more hours of sleep.]

O sleep it is a gentle thing,
And as the æons rolled,
We feeble pharmacists have striven
To reach the pharmaceutical Heaven
While Jesse scooped the gold.

Our Overlords in days of old
Ignored our grumbings deep :
They slept while rights from us were riven
And said our sins would all be shriven
If we would take more Sleep.

Export of Medicinal Tinctures.

THE following General Order was issued this week by the Inland Revenue Authorities from Somerset House :

The attention of the service is directed to the following matters in connection with the Revenue Act, 1906 (6 Edw. VII., c. 20).

Under Section 3 of the Act the Board are empowered to permit, subject to regulations, the exportation, or shipment as stores, on drawback, of "tinctures," and the exportation on drawback of spirits of wine, direct from the premises of a licensed rectifier or compounder; and in ascertaining the amount of drawback on any "tinctures" exported under such regulations, to make such addition as they think just in respect of waste.

By Section 4 (1) the expression "tinctures" is defined to include medicinal spirits, flavouring essences, perfumed spirits, and any other articles containing spirits and specified in regulations of the Commissioners.

The effect of the provision is to legalise the direct exportation from the premises of a licensed rectifier or compounder, of tinctures or medicinal spirits, flavouring essences, perfumed spirits, etc., and spirits of wine, and the direct shipment of tinctures or medicinal spirits as stores, hitherto allowed under the sanction of the Treasury; and, further, to permit the direct shipment as stores of flavouring essences and perfumed spirits, etc., which hitherto has not been allowed.

The Regulations made by the Board under the Act are annexed. Failure to comply with any regulation renders the offender liable to a penalty of 50% in addition to any other liability that he may incur, and the article in respect of which the offence is committed liable to forfeiture.

It will be observed that the only alterations rendered necessary in the printed instructions by the Act and by the regulations made under it, are those above referred to in regard to the direct shipment for stores, on drawback, of flavouring essences, perfumed spirits, and the articles enumerated in paragraph 55 of the instructions, which was not previously permissible.

The following alterations are to be made in the "Instructions relating to the direct exportation, etc., of tinctures, etc." :—

Cancel paragraph 1 as amended, and substitute for it—

1. A licensed rectifier or compounder may, subject to the following regulations, pack and remove for direct exportation or direct shipment as stores, on drawback, "tinctures" compounded by him from spirits on which duty has been paid. Under the term "tinctures" is included medicinal spirits, flavouring essences, perfumed spirits, toilet vinegars and waters, dentifrices, hair washes and brilliants.

The goods may be in bottles or metal canisters, packed in cases containing not less than one bulk gallon each, or they may be in jars covered with wicker-work, or in iron drums uncased, each containing not less than two and not more than ten bulk gallons. Perfumed spirits may, however, be packed in cases containing not less than half a bulk gallon each.

Then follow a series of verbal alterations in several paragraphs of the "Instructions," which is followed by the subjoined.

Regulations, dated August 11, 1906, made by the Commissioners of Inland Revenue, as to the exportation on drawback of tinctures and spirits of wine, and the shipment of tinctures as stores direct from the premises of a licensed rectifier or compounder.

1. The term "tinctures" in these Regulations includes medicinal spirits, flavouring essences, perfumed spirits, and the articles specified in paragraph 9 of these Regulations.

2. The tinctures must have been compounded by the rectifier or compounder from spirits on which duty has been paid.

3. The tinctures may be removed in bottles, or in metal canisters, packed in cases containing, as regards medicinal spirits and flavouring essences, not less than one bulk gallon each, and as regards perfumed spirits and the articles specified in paragraph 9 of these Regulations, not less than half a bulk gallon each. They may also be removed in jars covered with wicker-work, or in iron drums uncased, each containing not less than two, and not more than ten, bulk gallons.

4. No consignment of medicinal spirits or flavouring essences shall be of less quantity than two bulk gallons, nor shall any consignment of perfumed spirits or of any article specified in paragraph 9 of these Regulations be of less quantity than one bulk gallon.

5. The exporter must give twelve hours' notice to the proper officer on the prescribed form of his intention to pack and remove the goods, stating thereon the required particulars.

6. The packages shall be marked and secured in the manner prescribed from time to time by the Commissioners, and, before the goods are removed, bond with one surety must be given by the exporter for their due exportation.

7. The addition in respect of waste to be made under Section 3, Sub-section 2, of the Revenue Act, 1906, shall be 3 per cent. on the proof quantity of tinctures actually exported or shipped as stores.

8. Spirits of wine may be packed with medicinal spirits or flavouring essences for exportation as merchandise, but only in quantities not exceeding two bulk gallons in any one case.

9. The undermentioned articles containing spirits may be exported or shipped as stores, and are to be regarded as perfumed spirits for the purpose of these Regulations—viz. :

Toilet vinegars and waters, dentifrices, hair-washes, and brilliants.

10. Exporters shall provide suitable accommodation for the officer, furnish for his use such imperial measures as may be requisite, and give him any necessary assistance in the taking of his accounts.

Legal Reports.

Sale of Food and Drugs Acts.

CAMPHORATED OIL.

At Brighton on August 21, Boots, Ltd., whose registered office is at 29 Farringdon Road, London, were summoned for selling through their agent, John Normandale, 4 oz. of camphorated oil which was deficient in camphor to the extent of 20 per cent. Mr. C. N. T. Jeffreys appeared to prosecute on behalf of the Corporation, and Mr. W. S. Glyn-Jones, barrister (instructed by Messrs. Neve, Beck & Kirby, of Lime Street, London), was for the defence. Mr. Glyn-Jones raised the objection that the summons did not comply with the Act. Section 19 of the Sale of Food and Drugs Act, 1899, provided that the summons should not be made returnable in less than fourteen days from the time it had been served. In this case the summons was not served until the 8th inst., so that thirteen days only had elapsed. He might say that he had a number of defences, but the present one was easiest, and the one that involved the least trouble. Mr. Jeffreys stated that he had taken particular trouble over this case. He took out the summons on Friday, the 3rd inst., and then it was sent up to Scotland Yard, for service by the Metropolitan Police. But perhaps owing to the fact that the Monday was a Bank Holiday, the summons was not served till the 8th inst. The fault lay with the Metropolitan Police. The case was dismissed.

County Court Cases.

A SLUMP IN ANALYSES.

In the City of London Court on August 21, Mr. H. E. Hooper applied to have Mr. H. W. Wallis, 11 Probyn Road, Tulse Hill, committed for non-payment of 9*l.* due. Plaintiff said the defendant was an analytical chemist. Defendant said that was so, but business was very bad. He could not pay more than 5*s.* a month. Judge Lumley Smith ordered payment of 5*s.* a month.

CONTEMPT OF COURT.

At Kingsbridge (Devon) County Court on August 20, the adjourned case of *W. M. Tucker v. Ada Hodgson*, of Dodbrooke, was mentioned. Plaintiff, a chemist and druggist, had subpoenaed defendant to give evidence as to her means, but she failed to put in an appearance. Judge Lush Wilson, K.C., said it was clearly a case of contempt of court. The debt was 3*l.* 15*s.* 10*d.* for medicine supplied to the children. The husband had no income, and there was a bill of sale upon the furniture, so it was no use suing him. Defendant had an income of 300*l.* a year, which was paid her four times a year, which information he had obtained from her trustees and solicitors. He imposed a fine of 4*l.*, the amount claimed to be taken out of it.

Bankruptcies and Failures.

Re WILLIAM EDWARD JAMESON, 1 Harold Place, Hastings, Chemist.—This debtor applied to Judge Scully, sitting at the Town Hall, Hastings, on August 20, for an order discharging him from bankruptcy, which was subsequently granted subject to a suspension of two and a half years.

Re WILLIAM THORBURN LAW, Hamilton Place, 380 Dumbarton Road, Partick, Chemist and Druggist.—Mr. James Cowan Paterson, C.A., Glasgow, has been elected trustee of this estate. The creditors will meet in the chambers of Messrs. Paterson & Benzie, chartered accountants, 121 St. Vincent Street, Glasgow, on September 5, at eleven o'clock. At a meeting of creditors at which the trustee and commissioners were elected, the bankrupt offered to pay a composition of 5*s.* in the pound on all debts due by him at the date of his sequestration, payable within one month after his final discharge, and also to pay and provide for the expenses of the sequestration and the trustee's remuneration. The acceptance or non-acceptance of this offer will be decided upon at the next meeting of creditors.

Re ALFRED HOWARD STOTT, Ravenscourt Works, Dalling Road, Hammersmith, late Chemical-manufacturer.—On Thursday the first meeting of creditors under this failure was held at the London Bankruptcy Court. The debtor started business as a chemical-manufacturer in 1902 as Howard Stott & Co., with a partner who provided 500*l.* Two years after-

wards the business was converted into a limited company, registered as Howard Stott & Co., Ltd., the consideration being 1,200*l.* in debentures, of which the debtor received 250*l.*, and transferred them to his wife on account of a loan of 500*l.* He acted as director and manager of the company until last November, when he resigned. As vendor he received 2,500 fully-paid shares, of which he held 1,750 at the date of the receiving order. The failure is attributed to the loss of regular employment by the company, which took over his business, and to inability to realise his shares in the concern. A statement of affairs was lodged showing liabilities 694*l.* 6*s.* 8*d.* and assets valued at sufficient to provide a surplus of 60*l.* 1*s.* 3*d.* In the absence of any offer the case was left in the hands of the Official Receiver to be wound up in bankruptcy, the debtor's public examination being fixed for September 18.

Deed of Arrangement.

Sawbridge, Ernest Edward, 29 Carlisle Street, Dresden Longton, Staffs, Dealer in Drugs. Trustee, Edmund J. Kent, Longton, Estate Agent. Dated August 14; filed August 15. Liabilities unsecured, 88*l.* 13*s.* 4*d.*; estimated net assets, 34*l.* 5*s.* 3*d.* The scheduled creditors are Messrs. Wyleys, Ltd., Coventry (21*l.*), and S. H. Sawbridge, Southampton (34*l.*).

Gazette.

Partnership Dissolved.

Thompson, H., Elliott, E., and Taylor, W. B. E., Seven-oaks, Kent, medical practitioners.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDERS.

Garson, John George, Eversley, Hants, medical practitioner.
Johnston, James, Bradford, surgeon.

Scott, Charles Edward (carrying on business as Maitland & Co.), East India Dock Road, London, E., chemist and druggist.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Shearer, William, Camberley, Surrey, mineral-water manufacturer; discharge suspended for three years ending April 19, 1909.

Wicks, James Percy, Walton-on-the-Naze and Colchester, mineral-water manufacturer; discharge suspended for two and a half years ending January 24, 1909.

New Companies and Company News.

FROME MINERAL-WATER Co., LTD.—Capital 1,100*l.*, in 1*l.* shares. Objects: To acquire certain premises in Palmer Street, Frome, to take over the business of a mineral-water manufacturer carried on at Frome by A. J. Wall, and to adopt an agreement with W. R. Bown, W. E. Yerbury, G. Angus, and G. H. Budden. No initial public issue. The first directors are W. R. Bown, W. E. Yerbury, G. Angus, G. H. Budden, and J. Holloway. Qualification 25*l.* Registered office, 11 and 12 Palmer Street, Frome.

COMET CHEMICAL Co., LTD.—Capital 3,000*l.*, in 1*l.* shares (1,000 7-per-cent. preference). Objects: To take over the business of drysalts, importers of and dealers in chemicals and druggists' sundries, etc., carried on by C. Leigh, at 10 and 11 Victoria Buildings, Manchester, as the "Comet Chemical Co.," together with the trade-mark "Comet." The first subscribers (each with one share) are: C. Leigh, 10 and 11 Victoria Buildings, Manchester, chemical-manufacturer; Miss A. Hewitt, 37 Kippax Street, Moss Side, Manchester; H. Spurr, 104 Clifton Street, Miles Platting, Manchester, clerk; I. Levin, 25 Granville Road, Blackpool, agent; Mrs. E. Levin; B. Glass, 8 Baston Street, Higher Broughton, Salford, tailor; and Mrs. J. Glass. No initial public issue. The first directors are C. Leigh (chairman), J. Earnshaw, and I. Levin. Remuneration as fixed by the company. Registered office, 10 and 11 Victoria Buildings, Deansgate, Manchester.

JOHNSON'S SACCHARUM Co.—Resolutions for winding up voluntarily have been passed and confirmed, the directors being appointed liquidators. The business has been taken over by the Sugar and Malt Products, Ltd.

LAWES' CHEMICAL MANURE Co., LTD.—The annual report states that the available balance is 16,395*l.* A dividend of

6s. 6d. per share is proposed, placing 1,000l. to reserve, 750l. to reserve for bad and doubtful debts, and carrying forward 884l.

HIRST, BROOKE & HIRST, LTD.—A trust-deed dated August 9 to secure 30,000l. debenture stock, created by resolution of July 24, 1906, has been registered. The property charged comprises certain land at Milgarth, Leeds, with mills, premises, plant, fixtures, etc., thereon, and the company's undertaking and general assets, present and future. The trustees are Colonel C. Coghlan, Headingley Hill, Leeds, and W. H. Maude, Middleton Lodge, near Leeds.

UNITED INDIGO AND CHEMICAL CO., LTD.—At the sixth annual meeting of shareholders at Manchester on August 20, Mr. C. J. Whittaker, F.C.S., in the chair, the year's profit was announced as 11,434l., out of which the directors proposed to pay 10,260l. as interest on the preference shares for the eighteen months ended December 1905. The Chairman, after regretting losses by death and resignation, said the company had been met by new competition, and prices had been cut down in consequence. The new concern now competing with the company had taken some of their employees. The Boston branch had done better than ever, and the colour branch had made money.—The Chairman was re-elected, and, in reply to a question as to how long the price-cutting would go on, replied that he thought their own company, having got the money, would win in the end.

Recent Wills.

JOHNSON.—Alderman Richard Johnson, J.P., of Ince Hall, Wigan, Lancs, mineral-water manufacturer, of Hall Street, Ince, President for some time of the National Union of Mineral-water Manufacturers, a well-known member of the National Reform Club, and formerly Mayor of Wigan, who died on April 10 last, aged fifty-three, left estate of the gross value of 4,588l. 9s. 3d. Probate of his will, dated April 2, 1906, with a codicil of April 3, 1906, has been granted to Mr. John Graham, solicitor, of 23 King Street, Wigan, and Mr. Walter Davenport, secretary, of Hampton Hill, Middlesex; Mr. John Augustus Bradley, the other executor, has renounced probate. The testator left 3,000l. to be held upon trust for Tresa, daughter of Mr. Alexander Davidson, and he left the residue of his estate in trust for his wife, Mrs. Ann Johnson, for life or widowhood, and subject to her interest he left the ultimate residue of his estate in trust in equal shares for his daughters Bessie Maria and Edith Annie Johnson.

SQUIRE.—Dr. William Stevens Squire, Ph.D., of Clarendon House, St. John's Wood, N.W., chemical engineer, a leading authority on spirit manufacture, and inventor of several processes now used for the manufacture of acids and among brewers and distillers for the utilisation of yeast, formerly engaged with Messrs. Tyrer & Co., Ltd., in the manufacture of chemicals, a Fellow of the Chemical Society, who died at Taormina, Sicily, on May 13 last, aged seventy-one, left estate of the gross value of 22,430l. 19s. 1d., of which the net personalty has been sworn at 21,012l. 10s. 10d. Probate of his will, dated May 13, 1903, has been granted to his sons, Mr. William Stevens Squire, barrister-at-law, of 3 Belsize Road, N.W.; Mr. Ralph Tyndall Squire, of 1a Hamilton Terrace, St. John's Wood; and Mr. Lionel Robert Littler Squire, of 27 Marlborough Hill, N.W. He stated that it was his intention to provide a sum of 5,000l. each for his daughter Helen Sara and his son Lionel Robert Littler Squire, and 7,000l. for his son William Stevens Squire, and he directed that if at his decease he should not have given them the whole of these sums that his said children should receive such from his estate. To his son Ralph Tyndall he left 1,000l., considering him fully provided for by his appointment as agent for the sale of yeast. He left his scientific books to his son Lionel Robert Littler, and to his wife his horses and carriages and a selection of his books, plate, works of art, and household effects, to the value of 2,000l., and he left one-fifth of the residue of his estate to his wife, and one-fifth each to his four children, Helen Sara, William Stevens, Ralph Tyndall, and Lionel Robert Littler Squire.

THE EXPORTS of carbide of calcium from Gothenburg during 1905 amounted to 78,720 cwt., compared with 109,740 cwt. in 1904.

THE EXPORTS OF SARSAPARILLA from Livingston, Guatemala, to London and Hamburg amounted to 2,838 lb. last year, while the United States received 1,664 lb.

THE EXPORTS OF GALANGAL from Kiungchow during 1905 amounted to 13,118 cwt., against 20,573 cwt. in 1904. The average exports for the five years 1900-4 were 21,047 cwt.

Trade Notes.

PROTECTED PRICES.—The additions to the P.A.T.A. protected list in August include Curry's pills; Down's Farmers' Friend wheat-dressing; Herald's pills; Lescol soaps, dentifrice, and toilet-cream; and Tablax pills.

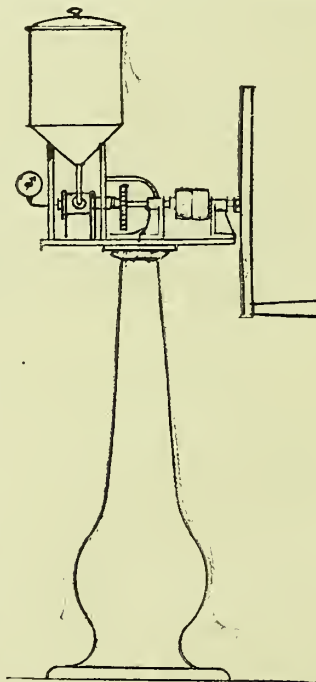
TELEPHONE NUMBERS ALTERED.—Messrs. H. Poths & Co., of Bury Court, St. Mary Axe, London, E.C., inform us that they have now altered their telephone numbers to "3365 London Wall" (three lines), instead of "1365" and "1381 Avenue."

JOHN STRANGE WINTER'S TOILET-PREPARATIONS have been awarded a gold medal diploma at the Food and Health Exhibition in Vienna. This makes the fourth gold medal Mrs. Stannard (John Strange Winter) has secured for her specialities.

REFRIGERATION.—Subscribers who live in warm climates, and to whom refrigerating-machinery specially appeals, should note that Messrs. Barnett & Foster, Eagle Wharf Road, London, N., have just published a special catalogue devoted to ice and refrigerating machines. The machines are constructed for anhydrous ammonia or carbonic-acid gas.

THE POMEROY SPECIALITIES.—Mrs. Pomeroy, Ltd., 33 and 34 Carnaby Street, London, W., whose toilet-preparations are well known, inform us that under new management the conditions of sale of their preparations have been considerably altered. The margin of profit allowed to the retailer has been maintained, increasing discounts being allowed to chemists according to the size of order. Carriage is paid on 20s. lots, while 2½ per cent. cash discount is allowed on monthly accounts. The minimum retail price has also been raised to the full face-value. New price-lists and terms can be had for the asking.

SHEARS' MULSER.—This is the name of a patent machine which has just been placed on the market by Messrs. Bennett, Sons & Shears, Ltd., 167 Kingsland Road, London, N.E. The object of the machine is to render emulsions and various liquids perfectly homogeneous, whether containing sedimentary matter or not, and preventing the component parts separating out in lumps or clots. It is specially suitable for making cod-liver oil and petroleum emulsions, the superior division of the emulsion prepared by this machine being shown on microscopically examining the product. The action of the Mulser is to pump the emulsion under pressure through very fine orifices against a revolving disc compressed by a spring against the surface of the plate containing the orifices which allows the liquid to



exude under any required pressure. The Mulser stands about three feet high, and is fitted for hand or power driving at 400 revolutions per minute, requiring about ¼th of a horse power, and has an average output of 10 gallons per hour. The illustration is of the Mulser arranged for hand power.

"TABLOID" PASTILLES.—The recent novelties from the Snow Hill laboratories of Messrs. Burroughs Wellcome & Co. include "tabloid" pastilles of "laxative fruit," of

menthol, and of menthol and eucalyptus. The laxative pastilles have a distinctly pleasant flavour. Each pastille contains 5 grains of extract of senna fruit in a suitable and agreeable basis suggestive of liquorice and black currant. The extract produces a gentle laxative effect without griping. These pastilles should form an acceptable and efficacious aperient, particularly for children and delicate females, or in cases when drastic purgatives are undesirable. Each "tabloid" menthol and eucalyptus pastille contains $\frac{1}{10}$ grain of menthol and $\frac{1}{2}$ min. of oil of eucalyptus. It is useful in the treatment of infective, inflammatory, ulcerated, or catarrhal conditions of the mouth and throat. Each "tabloid" menthol pastille contains $\frac{1}{8}$ grain of menthol. In each case the pastilles are issued in metal boxes of two sizes, and the pastilles are beautifully finished and packed with the neatness and distinction for which the B.W. products are noted.

New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books printed in Great Britain can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Alderson, F. Herbert. *Diet and Hygiene for Infants.* 6×4 $\frac{1}{2}$. Pp. 130. 1s. (W. Scott.)

Armstrong, H. E. *The Place Chemistry must Take in Public Estecm.* 7×4 $\frac{1}{2}$. Pp. 40. Swd., 6d. net. (Sherratt & H.)

Bone, W. A., and Wheeler, R. V. *The Combination of Hydrogen and Oxygen in Contact with Hot Surfaces.* 4to. Swd., 3s. net. (Dulau.)

Clarke, J. H. *Whooping-cough Cured with Pertussin.* 6 $\frac{1}{2}$ ×4. Pp. 76. 1s. (J. Epps & Co., 48 Threadneedle Street, London, E.C.) [Pertussin is a homœopathic nosode—the attenuated virus of whooping-cough. Dr. Clarke urges practitioners to give more attention to nosodes, which he claims are valuable remedies in the homœopathic armamentarium. This book shows that pertussin has a specific action in whooping-cough.]

Crowe, H. W. *Consumption: Treatment at Home and Rules for Living.* 6 $\frac{1}{2}$ ×4. 1s. net. (J. Wright & Co.)

Elliot, G. F. Scott. *First Course in Practical Botany.* 7 $\frac{1}{2}$ ×4 $\frac{1}{2}$. Pp. 352. 3s. 6d. (Blackie.)

Emery, W. D'Este. *Clinical Bacteriology and Hamatology for Practitioners.* 8 $\frac{1}{2}$ ×5 $\frac{1}{2}$. Pp. 254. 7s. 6d. net. (H. K. Lewis.)

Grossmann, J. *Elements of Chemical Engineering.* 7 $\frac{1}{8}$ ×5 $\frac{1}{2}$. Pp. 152. 3s. 6d. net. (C. Griffin & Co.)

Hinton, A. H. *To Make Bad Negatives into Good: Elementary Lessons for Beginners in Photography Simply Told.* 7 $\frac{1}{2}$ ×3 $\frac{1}{2}$. Pp. 60. 4d. net. (Hazzell, Watson & Vincy, Ltd.) [The first of a series of little books on photography founded on articles that have appeared in the "Amateur Photographer." This one deals with intensification and reduction in a manner which amateurs should readily be able to follow.]

Huggins, Sir W. *The Royal Society, or Science in the State and in the Schools.* 10 $\frac{1}{4}$ ×7. Pp. 148. 4s. 6d. net. (Methuen.)

Paton, D. M. *New Serum-therapy.* Cr. 8vo. 6s. net. (Baillière.)

Pharmacopœia of the Evelina Hospital for Sick Children, Southwark. 3rd ed. 5×3 $\frac{1}{2}$. Pp. 62. 1s. 6d. (Churchill.)

[This is the third edition of a useful little formulary revised by Mr. F. A. Hocking, B.Sc., the dispenser. There are some new ideas shown in various formulæ, such as a trace of tobacco in the asthma-powder recipe, an easily made ether soap, and a sulphur lotion made by mixing thiosulphate of soda and glacial acetic acid. What is "parabolic fluid"? It is ordered in an aqueous lotion. At the end are diet tables, and it should be noted that the posology is adapted to children.]

Semi-annual Report of Schimmel & Co., April/May 1906. 8vo. Pp. 137. Leipzig. [Besides the customary commercial report and notes on scientific progress, this issue contains critiques of the monographs on essential oils in the American (U.S.), Austrian, and Spanish Pharmacopœias.]

Thomson, S., and Steele, J. C. *Dictionary of Domestic Medicine and Household Surgery.* Revised by Albert Westland and George Reid. 38th edit. 9×6. Pp. 771. 10s. 6d. net. (Griffin.)

Walker, E. *Modern Medicine for the Home.* 7 $\frac{1}{2}$ ×4 $\frac{1}{2}$. Pp. 272. 2s. 6d. (T. W. Laurie.)

Walker, N. *Introduction to Dermatology.* Illus. 3rd edit. 8 $\frac{1}{2}$ ×5 $\frac{1}{2}$. Pp. 308. 9s. 6d. net. (Simpkin.)

Reviews.

An Introduction to Volumetric Analysis. By A. JAMIESON WALKER, Ph.D. (Heidelberg), B.A., and OWEN E. MOTT, Ph.D. (Heidelberg). 7 $\frac{3}{8}$ ×4 $\frac{1}{2}$. Pp. 64. 2s. 6d. London: Chapman & Hall, Ltd.

THE authors explain in the preface that they have endeavoured to teach volumetric analysis in a manner which shall avoid making mechanical students. We do not think the intelligent reader will fail to grasp the fundamental principles of the subject: they are explained in a concise and accurate manner. The little book is one which beginners in volumetric analysis can use with confidence.

Qualitative Chemical Analysis, Organic and Inorganic. By F. MOLLWO PERKIN, Ph.D. 2nd edition. Illustrations. 8 $\frac{3}{8}$ ×5 $\frac{3}{8}$. Pp. 308. 4s. London: Longmans, Green & Co., 39 Paternoster Row, E.C.

WE characterised this book as "trustworthy" when noticing its publication in 1901. Since then considerable revision has taken place in order to bring the work up to the present-day standard of chemical knowledge. We note, for instance, that the reactions of persulphuric acid and hydrogen peroxide have been added to the inorganic part. As a student's book Dr. Perkin's is to be recommended, as throughout the explanations of the reactions which are utilised in analysis are fully explained, so that the student gets an intelligent grasp of the subject. The theory is nicely dovetailed with practice.

The Consumer's Handbook of the Law Relating to Gas, Water, and Electric Lighting. By LAWRENCE DUCKWORTH. 3rd edition. 7×4 $\frac{1}{2}$. Pp. 108. 1s. 6d. net. London: Effingham Wilson, 54 Threadneedle Street, E.C.

BUSINESS men find it necessary and advantageous to know the law relating to gas, water, and electric lighting, and this book has been written to help consumers. It is a readable account of the powers of gas, water, and electric-lighting companies and the obligations imposed upon the companies by Acts of Parliament. The authorised rates of payment for water supplied by the Metropolitan Water Board are given—a useful feature to those who live in London.

Bookkeeping Down to Date. By ANDREW MUNRO. 7 $\frac{1}{2}$ ×4 $\frac{1}{2}$. Pp. 206. 2nd edition. 2s. 6d. London: Effingham Wilson, 54 Threadneedle Street, E.C.

THIS is a text-book on bookkeeping according to modern methods. It is well known that the evolution in this subject has left many of the older generation of accountants with antiquated systems of keeping business books. Sample pages are given of the various books required in a business-house and examples of the method of working. Bills of exchange and promissory notes are explained, and useful chapters are those on joint-stock company accounts and on income-tax. At the end of the book there are a glossary of terms and a list of abbreviations used in the counting-house.

The Elements of Chemical Engineering. By J. GROSSMANN, M.A., Ph.D., F.I.C.; with preface by Sir WILLIAM RAMSAY, K.C.B., F.R.S. 50 Illustrations. 8×5 $\frac{1}{2}$. Pp. 152. 3s. 6d. net. London: Charles Griffin & Co., Ltd., Exeter Street, Strand, W.C.

THIS is one of the series of technological handbooks which Messrs. Griffin produce, and is intended to familiarise the student with the principles of chemical technology in which reactions are done on a larger scale than the test-tube problems previously studied. Taking the chapters in order, the first one is devoted to the technical equivalents of the beaker—steam-pans and the like. Then are considered the equivalents of distilling-flasks, condensers, and fractionating-tubes, technical equivalents of the air-bath, blowpipe, crucible, funnel, mortar, etc. Sources of power and application of heat, measuring-instruments, and materials form other chapters. The book gives an excellent idea of the subject, and, considering the small size of the volume, the author is to be congratulated on the way he has treated a side of chemical engineering which lends itself to detail and complexity. We can recommend the book to students who desire to know something of the industrial side of chemistry.

Photographic Notes.

By PHARMACEUTICAL CAMERIST.

BLUE BROMIDES.

"The Bromide Monthly" gives the following formula for obtaining brilliant blue tones on bromide and gaslight cards, which some photographic chemists may find useful to recommend to their customers. After fixing and washing the cards, immerse in the toning-bath till the desired colour is reached, and then wash.

| | | | |
|------------------------|-----|-----|-----------|
| Ammonia iron alum | ... | ... | 10 grains |
| Potassium ferricyanide | ... | ... | 4 grains |
| Hydrochloric acid | ... | ... | 10 minims |
| Distilled water | ... | ... | 10 oz. |

Weak prints are preferable to dense ones, and a subsequent fixing-bath improves the brilliancy of the tone and renders the prints more permanent.

PLATINUM-PAPER DEVELOPER.

The two formulæ given here are from an article on obtaining vigorous platinotype prints in "Wilson's Magazine." The developers increase the contrasts of the prints, the second recipe being the one to use when most contrast is needed.

| | I. | II. |
|--------------------|------------|------------|
| Potassium oxalate | ... 8 oz. | ... 6 oz. |
| Sodium phosphate | ... 1½ oz. | ... 2 oz. |
| Oxalic acid | ... ¼ oz. | ... ½ oz. |
| Potassium chlorate | ... ¼ oz. | ... 1 oz. |
| Boiling water | ... 40 oz. | ... 60 oz. |

More vigour is given to the first formula by the addition of 10 minims of a 10-per-cent. solution of potassium bichromate. In the second recipe it is recommended to add 8 oz. of glycerin. Platinum prints to be developed in these solutions must appear over-printed.

NEW VARNISH FORMULÆ.

The "Photogram" quotes the following new formulæ for negative-varnishes from Valenta:

| | | | |
|----------------------|-----|-----|------------------|
| I. Gum dammar | ... | ... | 25 to 100 grains |
| Carbon tetrachloride | ... | ... | 1 oz. |
| II. Gum masti | ... | ... | 30 grains |
| Carbon tetrachloride | ... | ... | 1 oz. |

Dissolve by gentle heat, and filter.

Both give a hard resistant film which takes the retouching-pencil well.

PHOTOGRAPHIC LABELS.

"Photography" recently organised a competition for the best set of thirty-six labels suited for an amateur photographer's. The winning set was published printed in black on a pale-green background and on gummed paper; it was as follows:

Pyro Soda I.
Pyro Soda II.
Metol Hydrokinone Developer
Metol Hydrokinone I.
Metol Hydrokinone II.
Potassium Bromide 10 per cent.
Hypo
Alum Solution
Sodium Sulphite
Sodium Carbonate
Pyro 10 per cent.
Ammonia 0.880°
Potassium Metasulphite
Gold Chloride (1 gr.=1 dr.)
Ammonium Sulphocyanide
Potassium Ferricyanide
Gold Toner

Platinum Toner
Ammonium Persulphate
Uranium Nitrate
Mountant
Methylated Spirit
Mercury Intensifier I.
Mercury Intensifier II.
Hydrokinone
Metol
Potassium Bromide
Sodium-sulphite Solution
Formalin
Carbon Sensitiser
Combined Bath
Rodinal
Amidol
Platinum Developer
Hydrochloric Acid
Potassium Oxalate

FLATNESS IN THE NEGATIVE.

A customer of mine recently showed me some negatives of various subjects, every one of which had one predominant characteristic. They were all exceptionally flat, and lacked that "lustre" so necessary in a good negative. Each one was apparently correctly exposed and developed. The developer was pyro-soda or metol-quinol, and as it was made by myself I knew that the constituents were in their proper proportions, while the plates were by a standard maker. I was at a loss to understand this flatness, and

asked my customer to let me see his camera. He brought it to me, and on examining it I found the lens very dusty and the inside of the tube slightly polished. The condition of the tube was evidently the result of over-zealous cleaning. I wiped the dust from the glasses and applied a paint of lampblack, made with a little negative-varnish, to the inside of the tube, with the result that the camera now gives perfectly bright negatives. I thought the case was worth noting, as no doubt the lens is often an unsuspected cause of flatness. When cleaning a lens which has been allowed to get into this condition the greatest care is necessary to prevent scratching the highly polished surfaces of the glasses. The gritty particles of dust should be first carefully wiped off with a camel-hair brush before any rubbing is done, otherwise permanent injury is likely to be the result.

PHOTOGRAPHIC SURVEY.

It is decidedly encouraging to note that such an august body as the British Association is taking a live interest in photographic matters. A special meeting was held during the recent proceedings at York to discuss the important subject of photographic record and survey. In his opening address, Mr. J. Hopkinson, who presided, said that the sooner some systematic attempt was made to preserve a picture of everything that could be represented by the camera, the better it would be, for probably there had never been such a period of destruction of the works both of nature and of man as existed at the present. Professor Turner, of Oxford, suggested that it would be useful to take stereoscopic views as well as ordinary photographs, from which it would be possible, by calculation, to measure the distance between various points. It was decided to appoint a committee at the next meeting at Leicester, to collect details of the work already done, and to circulate among photographic societies and others printed matter having reference to the work required.

TONING BROMIDE PRINTS.

The following process for toning bromide prints with sodium sulph-antimonate is recommended by Mr. Stanley Aldridge, who is, if I make no mistake, not only a photographer but also a brother of the pestle. The prints should be fairly strong, and must be well washed after fixing, when they are bleached in the following solution:

| | | | |
|------------------------|-----|-----|--------|
| Potassium bichromate | ... | ... | ½ oz. |
| Pure hydrochloric acid | ... | ... | ½ oz. |
| Water | ... | ... | 20 oz. |

The bleached prints are then well washed and immersed in a solution of—

| | | | |
|-----------------|-----|-----|--------|
| Schlippe's salt | ... | ... | ½ oz. |
| Water | ... | ... | 20 oz. |

The final tone is reached in from five to ten minutes, and resembles that obtained by the Ferguson copper process.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

MR. S. H. VENABLES, chemist and druggist, has removed from 118 High Street to Springfield Road, Gorleston.

MR. J. ARMITSTEAD, chemist and druggist, of 19 Egerton Street, Heaton Park, has purchased the business of "Meredith & Co.," at 58 Sandy Lane, Skelmersdale.

MR. J. H. GRAY, chemist and druggist, formerly of 115 Dale Street, Liverpool, has purchased the business lately carried on by Mr. Thomas Stevenson at 5 Morris Green Lane, Bolton.

MRS. DAVE announces that, with the assistance of her son and a qualified chemist, she will continue to carry on the business of her late husband, Mr. John Dawe, chemist and druggist, at Church Street, Callington, Cornwall.

THE EXPORTS OF WHITE ALUM from Ningpo during 1905 amounted to 10,588,532 lb., against 9,334,932 lb. in 1904.

DURING 1905 the imports of ginseng (much of which is American) into Kiungchow amounted to 7,178 lb., against 10,076 lb. in 1904. The average for the five years 1900-4 was 11,645 lb.

Practical Notes and Formulæ.

MOSQUITO-LOTION.

| | |
|---|---------------|
| Formaldehyde (40-per-cent. solution) | 15 parts |
| Xylol | 5 parts |
| Acetone | 4 parts |
| Canada balsam | 1 part |
| Perfume | a sufficiency |

Shake the bottle and apply a little of the lotion to the mosquito-bite by means of a small piece of cotton-wool.

DURET'S BALSAM.

THIS balsam, which has been prescribed recently by French dermatologists, is, according to the "Journal de Médecine," made of

| | | | |
|--------------------|----|-------------------|-----|
| Coal-tar | 18 | Sulphur | 15 |
| Oil of cade | 15 | Borax | 36 |
| Resorcin | 2 | Glycerin | 50 |
| Menthol | 5 | Acetone | 80 |
| Guaiacol | 5 | Castor oil | 40 |
| Camphor | 40 | Wool-fat | 100 |

The sulphur is dissolved in the mixture of coal-tar, oil of cade, castor oil, and woolfat by heating at 130° C. in a closed vessel.

INK FOR WRITING ON POLISHED METAL SURFACES.

| | |
|-----------------------|-----------|
| Resin | 20 parts |
| Spirit | 150 parts |
| Methylene blue | 1 part |

Dissolve and add a solution of—

| | |
|--------------|-----------|
| Borax | 35 parts |
| Water | 250 parts |

The ink is then ready for use.

SYRUP OF TOLU.

In a new method of preparing syrup of tolu which is given in the "Bulletin de Pharmacie," granulated balsam of tolu is prepared of 10-per-cent. strength and used in equivalent quantity. The granulated balsam of tolu is made by dissolving 5 parts of tolu in 10 parts of 90-per-cent. alcohol and mixing with 45 parts of purified sand, the sand being stirred till all the alcohol has evaporated. The granulated balsam is percolated with boiling water, and the sugar dissolved in the percolate.

ATROSOGENE

is a powder which is recommended in affections of the intestines. According to the "Pharm. Zeit.," it has the following composition:

| | |
|----------------------------|----------|
| Bismuth subnitrate | 5 parts |
| Calcium carbonate | 12 parts |
| Magnesium carbonate | 3 parts |
| Sodium chloride | 10 parts |
| Sodium sulphate | 3 parts |
| Sodium bicarbonate | 65 parts |
| Pepsin | 3 parts |
| Powdered rhubarb | 2 parts |

FRESCO-RESTORATION.

In a Parliamentary paper just published Professor A. H. Church reports on the condition of the large wall-frescoes in the Houses of Parliament. The process of restoration is to clean the pictures with breadcrumb and distilled water. Places where the paint has peeled off are touched up with tempera colours, while the weak areas of the ground or of the original paint receive several applications of the following paraffin mixture:

Two ounces of a hard ceresin (with a melting-point of 156° F.) was melted and then thoroughly mixed with $\frac{1}{2}$ oz. of oil of spike lavender and 5 oz. of toluol—both of these liquids being measured, not weighed. The mixture is warmed till complete solution ensues; on cooling it forms a soft ointment-like paste which admits of being spread upon any surface by means of a brush or palette-knife. When, after the lapse of an hour or two, the toluol has evaporated, a spirit-flame or smokeless gas-jet is brought near the treated surface, the residual ceresin melts and is driven into the soft or decayed plaster or paint. Directly this is done, repainting may be commenced upon the plaster, which will be found to be hardened and capable of firmly retaining fresh pigment.

Recently Professor Church has experimented with alcohol and peroxide of hydrogen to remove discoloration, before using fresh colour made into a liquid with spirit-fresco medium.

Medical Gleanings.

BLOOD-COAGULATION.

DR. J. B. NIAS, in a paper to the "Lancet," gives the results of experiments with strontium and magnesium lactate in improving the coagulating-power of the blood. He finds that these lactates, in doses of from 1 to 2 grams, are serviceable substitutes for the salts of calcium when the latter are not absorbed from the alimentary canal. Hypodermic injection can be dispensed with when using the lactates of strontium and magnesium, as that method has no advantage in speediness of action.

BOT-FLIES IN THE INTESTINES.

SOME PARTICULARS were given in a recent number of the "British Medical Journal" of a case where a young man of nineteen passed per anum a large quantity of insects afterwards identified as bot-flies. The parasiticide used were various purgatives—santonine, turpentine, and calomel in 5-grain doses; these, however, did not seem to have much effect. Nature appears to have come to the aid of the patient, as larvæ are now seldom seen. The difficulty is to account satisfactorily for the presence of the larvæ in the bowels.

SCIATICA.

THE following are some of the methods of treatment of an obstinate case of sciatica recommended by correspondents of the "British Medical Journal":

Inject direct into the sciatic nerve ether. sulph. with a long hypodermic needle, beginning with a dose of 15 minims, increasing the dose up to 30 minims.

Two cases recently treated by static electricity have been completely cured.

Take pil. ferri carb. sacch., gr. 7, thrice daily, and in two or three weeks the patient will be well and feel none the less toned up as well.

Relief will almost certainly be obtained, possibly cure, from deep massage along the course of the sciatic nerve by means of a condenser electrode attached to one end of the usual high-frequency solenoid. The applications should not be so severe or so prolonged as to prevent repetitions every second or third day. The number of the applications required will depend on the previous duration of the complaint.

Try natural sulphur-baths.

Relief follows the administration of the following mixture:

| | |
|-------------------------------|--------|
| Liquor. strychninæ | ℞xxiv. |
| Tr. ferri sesquichlor. | ʒj. |
| Aquæ chloroformi | ʒij. |
| Aquam ad | ʒxij. |

Cap. ʒj. ter die post cibum.

THE HOURS OF SLEEP FOR CHILDREN.

DR. T. D. ACLAND, at the recent meeting of the British Association, read a paper on the physiological value of rest, in which he came to the following conclusions: (1) That rest is a physiological necessity, especially for those who have not reached maturity; that short hours of rest do not tend to promote efficiency and keenness of mind and body in the average boy, but that, on the contrary, they tend to loss of clearness and rapidity of brain function, to diminution of bodily vigour, and to retardation of physical and mental development; (2) that there is no ground for supposing that hard physical exercise is a sufficient compensation for hard brain-work, for after both mental and bodily activity there is need of rest, and if bodily activity is added to hard brain-work an increased amount of rest is required; (3) that to stint a child of rest is a mischievous way of attempting to teach him self-control, and defeats the very object in view by making him less efficient in body and mind than he is capable of becoming; (4) that to give a growing child ample rest is not only not teaching him self-indulgence and encouraging him in luxury, but is teaching him to obey physiological laws the neglect of which must impair the powers with which he has been endowed; (5) that it is just as cruel to deprive a growing child of an ample allowance of rest as to deprive him of the food which is needed to fit him for the full development of his body during the years of active growth.

DRUGS, MEDICINES, AND CHEMICALS valued at Rs. 11,373 were imported into Mombasa during May 1906.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., August 23.

THE month of August is maintaining its reputation as one of the duller of the year, and there is not much prospect of any improvement during the remainder of the month, as so many people are out of town. The alterations in chemicals include a firmer tone in sugar of lead, foreign yellow prussiate of potash, and ordinary nitrate of soda. Quinine in secondhands is firmer, but much depends on the result of the sale of bark at Amsterdam to-day. Among drugs, Belgian chamomiles have met with an active demand. Senega for shipment is selling at easier prices owing to weakness at primary sources, and euonymus-bark is tending higher. Foreign valerian is scarce. Ergot comes firmer from Russia, while cantharides are easier for shipment. Fine Tonquin musk is held for higher rates, and extreme prices are asked for new French lavender flowers. Opium is firm in sympathy with Smyrna. Menthol is inactive as regards speculation. Refined spermaceti, Japan wax, and refined camphor are all firmly held. Genuine cubebs are also well maintained. In essential oils peppermint is inactive, with an absence of speculation. Star-aniseed and cassia oils are becoming somewhat scarce, especially the latter. Citronella is firm, and lemongrass is quiet. Lemon oil is exceedingly firm. Several of the fixed oils have moved upwards, including castor, linseed, and turpentine oils. Refined cotton-seed and petroleum are also firmer. It is thought Norwegian cod-liver oil will appreciate in price as the winter approaches. Small supplies of spices were offered at auction, but no decided changes took place. Zanzibar cloves have been in active speculative demand at rising prices. Subjoined are the principal alterations of the week:

| Higher | Firmer | Easier | Lower |
|---------------------|-----------------------|---------------------|-----------------|
| Castor oil | Musk (Tonquin-pod) | Cantharides (Russ.) | Senega (c.i.f.) |
| Euonymus-bark | Pepper, white | | |
| Linseed oil | Potash, pruss. (for.) | | |
| Soda nitrate (ord.) | Quinine (seconds) | | |
| Sugar of lead | | | |
| Turpentine | | | |

Arrivals.

Among the arrivals of drugs, chemicals, etc., at the principal ports of the United Kingdom from August 16 to 22, inclusive, are the following: *Acetate of lime* (@ Portland, Me.), 3,378; *acetic acid*, (@ Fredricksstad) 40 cbs. 30 cks., (@ Terneuzen) 160, (@ Rotterdam) 8; *antimony* (@ Shanghai), 900 cs.; *antimony ore* (@ Bordeaux), 283; *argol* (@ Cape Town), 14; *benzoin* (@ Singapore), 48; 82 in tr.; *bleaching-powder* (@ Tréport), 24; *boric acid* (@ Rouen), 34; *buchu* (@ Cape Town), 14; *camphor*, (@ Foochow) 30 cs. in tr., (@ Hong Kong) 50 bxs. in tr.; *camphor oil*, (@ Havre) 20, (@ Hamburg) 100 cs.; *cantharides* (@ Russia), 5; *carbide of calcium* (@ Fredricksstad), 70; *cardamoms* (@ Colombo), 62; *castor oil*, (@ Marseilles) 53, (@ Antwerp) 34; *chamomiles* (@ Ghent), 25; *cinchona* (@ Valparaiso), 14; *citric acid*, (@ Rotterdam) 15, (@ Bordeaux) 8; *clove-stems* (@ Hamburg), 615 bls.; *cochineal* (@ Teneriffe), 11; *cod-liver oil* (@ Aalesund), 35; *coriander* (@ Casablanca), 100; *cream of tartar*, (@ Marseilles) 26; (@ Rotterdam) 8, (@ Bordeaux) 46; *drugs* (@ Rotterdam), 11;

essential oils, (@ Ostend) 12, (@ New York) 79; *formalin* (@ Hamburg), 10 cbs.; *galls* (@ Busreh), 678; *gamboge* (@ Havre), 14; *ginger* (@ Jamaica), 47; *gum Senegal* (@ Bordeaux), 100; *gums, unenumerated*, (@ Bushire) 114, (@ Bombay) 645 bgs.; *honey*, (@ Jamaica) 8, (@ Hamburg) 10; *lemon oil* (@ Messina), 16; *liquorice-juice* (@ Bordeaux), 105 cs.; *monazite sand* (@ Newport News), 33; *nux vomica* (@ Bombay), 367; *olibanum* (@ Bombay), 16; *opium*, (@ Bushire) 10, (@ Calcutta) 26; *potash carb.*, 91 brls.; *potash permang.*, 30; *quebracho ext.* (@ Buenos Ayres), 2,175; *quick-silver* (@ Malaga), 90; *quinine* (@ Rotterdam), 10 cs.; *quillaria* (@ Valparaiso), 531; *roots* (@ New York), 22; *sal ammoniac* (@ Amsterdam), 10; *sandarac* (@ Mogador), 33; *sarsaparilla*, (@ Hamburg) 11, (@ Jamaica) 15, (@ New York) 50; *soy* (@ Hong-Kong), 100; *spermaceti* (@ Valparaiso), 40 cs.; *squill*, (@ Catania) 28, (@ Malta) 8; *sugar of milk*, (@ Amsterdam) 75, (@ Hamburg) 10; *tartar*, (@ Marseilles) 55, (@ Bordeaux) 193, (@ Naples) 23, (@ New York) 20; *tartar emetic*, 4; *tartronic acid*, (@ Bari) 55, (@ Rotterdam) 4; *thorianite* (@ Ceylon), 6 cs.; *tragacanth* (@ Bushire), 32 cs. 62 bgs.; *turmeric*, (@ Calcutta) 29, (@ Bombay) 100; *turpentine* (@ Bordeaux), 200; *vanillin* (@ Hamburg), 9 cs.; *wax, bees'* (@ Valparaiso) 76, (@ Barcelona) 12, (@ Hamburg) 36, (@ Calcutta) 14, (@ Adelaide) 5, (@ Mogador) 57 (@ W. C. Africa) 57, (@ Jamaica) 6; *wax, carnauba* (@ Pernambuco), 162; *wine-lees*, (@ Messina) 432, (@ Bordeaux) 66; *wood oil* (@ Shanghai), 125.

Heavy Chemicals.

Generally speaking, a very good all-round demand is being experienced in the heavy chemical market for both main and miscellaneous products, and works are well employed. A brisk request is apparent for both home and export on prompt account, and values all round are very steady.

SULPHATE OF AMMONIA is on the firm side, with a heavier inquiry for forward. Present nearest prices: Beekton 12l. 2s. 6d., Beekton terms 11l. 5s. to 11l. 17s. 6d., London 11l. 15s. to 11l. 17s. 6d., Leith 12l. to 12s. 2s. 6d., and Hull 11l. 18s. 9d. to 12l.

ALKALI PRODUCE.—Since last writing a heavy business has been transacted in this branch, especially on forward account, and particularly in bleaching-powder and caustic soda, and prices are very steady and fully maintained. In bleaching-powder for next year business is being done on the basis of 4l. 10s. per ton for softwood casks free on rails, whilst prompt quotation runs from 4l. 12s. 6d. to 4l. 17s. 6d. per ton. For export, values run from 4l. 15s. to 5l. 5s. per ton, according to market, &c. Caustic soda is well maintained at unaltered figures: 76 to 77 per cent. 10l. 10s. to 10l. 12s. 6d. per ton, 70 per cent. 9l. 15s. to 9l. 17s. 6d. per ton, and 60 per cent. 8l. 15s. to 8l. 17s. 6d. per ton. Ammonia alkali also continues to maintain a very firm position, and contracts are being steadily booked over next year at 4l. 10s. to 4l. 15s. per ton, free on rails in bags. Soda crystals show little fluctuation, and are steady at 62s. 6d. to 65s. per ton f.o.b. Tyne, and 67s. 6d. per ton f.o.b. Liverpool. Salteake continues rather quiet for early delivery, and value may be taken as being from 27s. to 29s. per ton in bulk, free on rails. Bicarbonate of soda is steady at unaltered rates of 6l. 7s. 6d. to 6l. 12s. 6d. per ton f.o.b. Liverpool in large casks, and 6l. 12s. 6d. to 6l. 17s. 6d. per ton for smaller packages. Chlorates of potash and soda are well maintained at fixed prices of 3½d. to 3¾d. per lb. according to quantity, &c. Yellow prussiates of potash and soda, with continued good demand, are somewhat dearer, the former at 5½d. to 5¾d. per lb., and the latter at 3¾d. to 4d. per lb. Hyposulphite of soda continues in strong demand, and there is little or nothing available for prompt or early delivery outside existing contracts. Prices are very firm, and considerably higher figures are likely to rule over next year as compared with this. Present nominal quotations as follows: Ordinary crystals in large casks, 6l. to 6l. 10s. per ton. In 1-cwt. kegs prices vary according to quality and quantity from 7l. to 10l. per ton. Silicates of soda 140° Tw. 4l. 2s. 6d. to 4l. 12s. 6d. per ton, 100° Tw. 3l. 12s. 6d. to 4l. 2s. 6d. per ton, and 75° Tw. 3l. 5s. to 3l. 15s. per ton, in accordance with quality, quantity, and destination.

Liverpool Drug-market.

Liverpool, August 22.

AFRICAN GINGER.—Firmly held at auction at 25s. to 25s. 6d., a bid of 23s. 6d. being refused.

CARNAUBA WAX.—Waxy grey is firm at 160s., for chalky grey slightly less would be taken.

CASTOR OIL.—Good seconds Calcutta remain unchanged at 3½d. to 3¾d. per lb. on the spot, with but very little business passing. First pressure French is also unchanged at 3½d. in barrels and 3¾d. in cases.

CITRONELLA OIL is firm at 1s. 7½d. per lb.

GALLS.—Smyrna blue have been sold at 100s.

GUINEA GRAINS.—For a small parcel at auction there was some competition and the lot realised 43s. per cwt.

POTASHES.—Montreal potashes are offered at 30s. per cwt.
QUILLIA-BARK.—Sales have been made at 18l. per ton and a very firm tone prevails. Recent earthquake in Chili may affect this article.

WAX (BEES').—Sales of Sierra Leone have been made at 6l. 12s. 6d. and Chilian at from 7l. 10s. to 8l. 5s. per cwt.

American Drug-market.

New York, August 14.

The usual hot-weather dullness prevails, and there is little activity in any branch of the drug-market.

ALOES.—All varieties continue firm. Curaçao are very strong at 6½c. to 7c., with little available at the inside figure. Barbados are firm at 14c. to 15c. in gourds, and Cape at 7½c. to 9c. Aloin is firmly held at 55c. to 60c.

BALSAM COPAIBA.—Central American is fairly active and firm at 30c. to 32½c., with little straight goods available at the inside figure. The higher figure is being paid for new arrivals. Pará is offered likewise at 40c. to 45c., with imports invoicing at 45c. up.

BEEFWAX is not active, but quotations are firm at 32c. for ordinary fine.

CASCARA SAGRADA.—This year's crop is reported to be less than one-sixth that of last year, but prices show no inclination to advance. Most dealers were heavily overstocked with last year's crop, and higher prices are not probable just yet. Last year's bark is offered at 6c.

COD-LIVER OIL is extremely dull, but some forward contracts are being made at \$23.00 for Norwegian and \$22.00 for pure Newfoundland.

ERGOT is quiet but firm, with Russian quoted 26c.

GRINDELIA ROBUSTA is weak, and 7½c. is a nominal quotation.

JALAP.—Prime root is held at 14c.

JAPAN WAX is selling at 12½c., and prices are firm.

MENTHOL is firmer, with \$2.90 generally quoted, though some is offered at \$2.85.

NX VOMICA is in moderate supply, and jobbing in a small way at 2½c. to 3½c.

OPIMUM.—Case lots are offered at \$3.00, while broken lots are still held at \$3.10.

PEPPERMINT OIL is firmly maintained on a \$3.00 basis, and new crop is offered at this figure, with prospects of advances, as the yield this year appears to be light owing to unfavourable weather conditions.

QUININE is easy at the decline to 15½c., and most dealers expect a further drop to 15c. Second-hands offer Java at 15c. and German at 15½c.

SARSAPARILLA.—Mexican is firm at 10½c. and Honduras at 72c.

SENEGA is weak, and while spot goods are quoted at 54c., new crop will be available at a lower figure.

German Drug-market.

Hamburg, August 21.

AGAR-AGAR is firm but quiet at 290m. to 295m. for prime.

ANTIMONY is quoted 140m. per 100 kilos.

CAMPHOR is very strong and scarce; 900m. per 100 kilos. is asked for refined in bells, and there are buyers at 885m.

CITRIC ACID is firm on the spot at 340m. per 100 kilos., which price has been paid.

CANTHARIDES are declining; 9m. per kilo. is now quoted.

CARAWAY-SEED is a little easier at 54m. per 100 kilos.

CARNAUBA WAX is steady, at from 316m. to 450m., according to quality.

CONDURANGO is steady at 65m. per 100 kilos.

CORIANDER is rising; Mogador is now 33m. to 35m. per 100 kilos.

CUMIN-SEED is very firm, Malta seed offering at 72m. per 100 kilos.

ERGOT is quiet at 230m. per 100 kilos.

FENUGREEK is firmer at 21m. per 100 kilos.

IPECACUANA is steady, Rio offering at 16m. and Cartagena at 15½m. per kilo.

JAPAN WAX is firm at 117m. per 100 kilos.

LYCOPodium is quiet at 420m. to 415m. per 100 kilos.

MENTHOL is quoted at 20m. to 20½m. per kilo.

OILS (ESSENTIAL).—H.G.H. peppermint is steady at 14½m. to 15m. per lb., and Japanese at 13m. to 13½m. per kilo. Camphor is firm at 150m. per 100 kilos., and cassia is also firm at 7.65m. per kilo.

OILS (FIXED).—Castor is advancing; 58m. per 100 kilos. is now asked for first pressing in barrels. Cod-liver is unchanged at 68m. to 70m. per barrel for non-congealing oil. Chinese wood is firm at 61m. per 100 kilos. Japan fish is firmer at 25m. per 100 kilos. Palm-kernel is very scarce at 59m. per 100 kilos.

QUININE is offered at 26m. per kilo.

SENEGA-ROOT is quiet on the spot at 525m. and forward 500m. per 100 kilos.

WORM-SEED is firm at 134m. per 100 kilos.

ACID, CITRIC.—Steady, but in somewhat slow demand at the moment. English is still quoted at 1s. 8d. per lb., and foreign at from 1s. 7½d. to 1s. 7¾d.

ACID, TARTARIC, is unaltered at 11¼d. for English and 10¾d. for foreign.

ANTIMONY is firm at from 102l. to 105l. per ton for English regulus for prompt delivery.

ARROWROOT.—At auction 157 barrels St. Vincent were bought in at 2¼d. to 2¾d., and fine 3¾d. per lb.

BALSAM, CANADA, is scarce on the spot. In 3-cwt. casks 1s. 8d., and in kegs 1s. 9d. per lb. is quoted.

BENZON.—Steady, with fair deliveries of Sumatra of the medium to good qualities at between 6l. and 8l. 7s. 6d. The market is practically bare of Palembang with the exception of a few cases of fine, which are held at 72s. 6d. The arrivals comprise 20 cases of Sumatra and 25 of Palembang, but no Siam.

BROMIDES.—The market remains in the same unsatisfactory condition, there being practically no new business to report, as consumers are mostly "full up." Although no truce has been declared between the German and American makers, it has been apparent for some time that both sides are exhausted with the recent price-cutting, and a reconciliation at some future date is not impossible.

CAMPHOR.—Some small sales of crude Amoy ex auction have been made at 350s. per cwt., and for shipment 330s., c.i.f., has been paid. Business has also been done in Japanese tablets at 4s. 2d. on spot, and a sale of 50 cases 2½-lb. slabs near at hand has been made at 3s. 11d., c.i.f.

CANTHARIDES.—Good Russian for shipment are offered at somewhat cheaper rates—viz., 3s. 10d. to 4s. per lb., c.i.f.

CHAMOMILES.—The new Belgian crop has been selling in fairly large quantities, and it is thought that prices will advance. French buyers appear to have secured a goodly proportion of the best qualities of the new crop, and the consequence is, No. 1 flowers are somewhat scarce; prices ranging from 90s. to 100s. as to quality, and for bold No. 2, somewhat "coloury," 85s. and upwards is quoted.

CHILLIES.—At auction 65 bags mixed Zanzibar and Mombasa sold at 16s. 6d. per cwt.

CINCHONA.—The exports from Java to Europe during the first half of August amounted to 705,000 Amst. lb., against 656,000 Amst. lb. for the same period of 1905.

CITRATE OF LIME.—Under date of August 17 the price comes from Messina at about 26l. 2s. 6d. per usual 305 kilos. and 64 per cent. citric acid. In our issue of August 11, p. 281, we quoted Sicilian citrate of lime at "29l. per ton," whereas it should have been "per usual basis of 305 kilos. and 64 per cent. citric acid," which would mean 96l. 10s. per ton of 1,015 kilos., c. and f.

CLOVES.—A few bales of Zanzibar sold in auction at 7½d. per lb. for barely fair, and of Amboyna sales of fair were made at 9d. Privately, spot sales of fair Zanzibar have been made at 7¾d. per lb. At the opening of the week practically 3,000 bales sold for delivery at lower prices, including October-December at 6½d. to 6¼d., and January-March at 6¾d. to 6½d. Subsequently prices were firmer, with an active business, June-August selling at 7½d., August-October selling at 7d. to 7½d., October-December 6¼d. to 7¼d., and January-March at 6½d. to 7d. For arrival fair sales have been made, including October-December at 6½d., and November-January shipment at 6½d. to 6¼d. to 6½d., c.i.f. d/w., and to-day January-March has been sold at 6½d. to 6¼d.

COCOA-BUTTER.—The auction to be held at Amsterdam on September 4 will consist of 70 tons van Houten's, 4 tons de Jong's, and 8 tons Mignon.

CUBEBS.—The parcel of eight bags of greyish dusty and very stinky, sold previous to the auction last week, realised 35s. per cwt. For genuine berries 50s. per cwt. continues to be asked.

ERGOT.—Holders in Russia are asking higher prices—viz., 1s. 2d. c.i.f. for shipment direct.

ETONYMUS-BARK is tending higher; spot is quoted nominally 1s. 6d. to 1s. 7d. per lb.

GAMBOGE.—Three shipments, amounting to about 30 cases in all, have arrived.

GINGER was represented in auction by only 27 bags damaged Cochin, which sold at 22s. to 23s. 6d. per cwt.

GLYCERIN.—Double-distilled, s.g. 1.260, in tins and cases is quoted at from 50*l.* to 51*l.* per ton, and in 5-cwt. drums 48*l.* *Crude* is 26*l.* to 27*l.* per ton.

GUM ARABIC.—Steady, but quiet. Among East Indian gums Aden is scarce and wanted, while Ghatti has an easier tendency, No. 1 offering at 33*s.* 6*d.* and No. 2 at 22*s.* 6*d.* per cwt., c.i.f. terms. Soudan gums are steady, but neglected, fair half-hard sorts realising 26*s.* 6*d.* to 27*s.*, fair pale being held at 32*s.* 6*d.*, and good pale soft at 42*s.* per cwt. At auction 218 packages offered, of which 38 sold at 28*s.* 6*d.* for fair reddish Aden, small palish at 25*s.* 6*d.*, pale Shiraz at 23*s.* 6*d.*, blocky reddish Madras at 25*s.*, and dark red ditto 19*s.*

HOPS.—The reports from the crop-estimators of the Board of Agriculture on the condition and prospects of the principal crops indicate that hops are unmistakably the worst crop of the year, and the yield generally will be very deficient. In Kent and Sussex attacks of hop-fly and vermin have proved disastrous to the crop and necessitated continuous washing. In Surrey the crop is reported as extremely bad in Farnham. In Hereford, hops in many parishes are an entire failure, and in some cases will not be picked. In Worcester hops are still in a critical condition, and there is much blight and a promise of only a half-crop.

IPECACUANHA.—Steady; since the auctions the 6 bags of Cartagena offered have been disposed of at 6*s.* 8*d.* per lb., but it is doubtful if further lots can now be had at this price, some holders asking 6*s.* 9*d.* to 6*s.* 10*d.* About 6 bales of cultivated Minas have also been sold from first-hands at the auction limit of 7*s.* 4*d.* There are sellers of Matto Grosso at 7*s.* 6*d.* and Johore at 7*s.* 6*d.* also. The deliveries from the warehouse this month do not indicate that business has been brisk.

KAMALA.—A small sale ex auction has been made at 9*d.* per lb.

KOLA.—Sales of good dry Jamaica have been made at 4*d.*

LAVENDER-FLOWERS.—The French crop is said to be a small one, and, in consequence, prices remain high. One importer asks 1*s.* per lb. for fine quality.

LYCOPodium.—In Germany prices have been maintained for some time past at from 400*m.* to 420*m.* per 100 kilos. There have always been fair quantities on offer, and it is expected that a fairly large stock will be carried over to the new season. There is nothing definite yet as regards the new crop, but a few offers have been made from Russia.

MACE.—Steady at auction; small sales of West Indian being made at 1*s.* 9*d.* to 2*s.*, and fair at 1*s.* 5*d.* to 1*s.* 6*d.* per lb.

MENTHOL continues quiet but steady, with small sales of Kobayashi on the spot at 9*s.* 1½*d.* Suzuki near at hand has been sold at 8*s.* 7½*d.*, c.i.f.

MUSK.—Tonquin pod is firmer, fine blue skin Pile I. now being held for 75*s.* per oz. The market is now bare of Pile III. Tonquin, some 100 oz. having been placed at 55*s.* per oz. Old-fashioned is also very scarce and wanted; value of Pile I. is from 45*s.* to 50*s.*, and Pile III. 32*s.* 6*d.* per oz.

MYRRH.—Prices are maintained at 92*s.* 6*d.* per cwt. for fair sorts.

NUTMEGS.—Quiet at auction; 100 boxes Singapore 81 to the lb. were bought in at 1*s.* 2*d.*; 45 packages West Indian sold, 69's at 11½*d.*, 90's at 9½*d.*, 104's at 6*d.* to 6½*d.*, 102's long mixed dark at 5½*d.*, 112's fair at 6½*d.*, 124's at 6*d.*, 132's at 5½*d.*, 144's at 5½*d.*, and 153's at 5*d.*

OIL, ANISEED, STAR, continues steady, with spot sales at 5*s.* 5*d.* per lb.

OIL, CASSIA, is now scarce on the spot, and the market has an upward tendency, as nothing appears to be offering from China. 70 per cent. to 75 per cent. c.a. has been sold at 3*s.* 3*d.*; 75 per cent. to 80 per cent., 3*s.* 5*d.*; and 80 per cent. to 85 per cent., 3*s.* 8*d.* per lb.

OIL, CASTOR, has been advanced 5*s.* per ton, Hull make of first pressing for October to December delivery offering at 29*l.* 5*s.* per ton, and second pressing for November-December delivery at 28*l.* 5*s.* First pressing for January to June (1907) delivery is quoted 28*l.* 15*s.* and seconds 27*l.* 5*s.*, barrels free, ex wharf London.

OIL, COD-LIVER.—Our Bergen correspondent writes on August 20 that the oil-market is unaltered and very quiet; finest non-congealing Lofoten cod-liver oil being offered at 65*s.* per barrel, f.o.b. Bergen. The exports from Bergen up to date are 8,519 barrels, against 6,910 barrels at the same date of last year. On this side it is thought the market will advance as the winter approaches. Meanwhile there is a small inquiry, finest new non-freezing Norwegian offering at 70*s.* per barrel on the spot.

OIL, LEMON.—Extreme prices continue to be quoted from Messina for prompt shipment—viz., 5*s.* 2*d.* to 5*s.* 6*d.*—but business is quite out of the question at these figures. New crop for January-June shipment is quoted 3*s.* 6*d.* to 3*s.* 7*d.* c.i.f., and on the spot from 3*s.* 3*d.* to 3*s.* 9*d.* will buy good oil.

OIL, PEPPERMINT.—Quiet. In American oil 12*s.* 6*d.* to 13*s.* has been paid for small lots of Wayne County on the spot, and H.G.H. has been sold at 15*s.* 4½*d.* *Todd's* crystal white is quoted 15*s.* There are as yet no offers of the new crop of Wayne County oil. It is stated that most of the American producers intend to "pool" their oil, which it is thought is a comparative easy matter, seeing that the crop is only a small one. Higher prices would follow as a natural consequence, and this would probably have the effect of diminishing consumption on this side. Japanese dementholised oil is steady, with sales of Kobayashi at 5*s.* 10½*d.* spot, and for October-November shipment quotations are rather lower, at 5*s.* 9*d.*, c.i.f.

OILS, FIXED.—*Linseed* is firm at 20*s.* 4½*d.* on the spot in pipes and 20*s.* 6*d.* in barrels. *Rape* is unchanged but firm at 27*s.* 3*d.* for ordinary brown and 28*s.* 9*d.* for refined. *Coconut* is offered at 32*s.* 6*d.* for Ceylon, and 37*s.* for Cochin on spot. *Cotton-seed* is rather firmer at from 22*s.* 6*d.* to 24*s.* per cwt. for refined, and 21*s.* 3*d.* for crude on spot. *Lagos Palm* is 29*s.* 6*d.* per cwt. *Petroleum* is firmer at from 6½*d.* to 6¾*d.*, but water-white is ¼*d.* per gal. lower at 7½*d.* to 7¾*d.*, and Russian is 6*d.* to 6½*d.* per gal. *Turpentine* has advanced to 46*s.* 3*d.* per cwt. on spot for American.

OLIBANUM is unaltered, the sales comprising fine pale picked drop at 58*s.*, fair ditto 37*s.* 6*d.* to 40*s.*, ordinary badly garbled at 27*s.* 6*d.*, fair to good garblings 16*s.* to 20*s.*, and siftings at 16*s.* to 20*s.* per cwt. At auction 440 cases offered, of which 11 sold at 27*s.* 6*d.* for ordinary small drop.

OPIMUM.—The market in Turkey remains firm, but in London the paucity of suitable material restricts business. Persian is neglected at from 12*s.* to 12*s.* 6*d.* per lb. spot.

SMYRNA, August 10.—The sales this week amount to 118 cases, comprising 43 cases Yerli t.q., 46 cases Karahissar t.q., six cases usual run manufacturing, and 12 cases extra Yerli, all for American account; two cases extra Yerli for France, and nine cases common qualities for speculators. Rich qualities are much in demand, so that prices will be well maintained until all needs are supplied. Meantime slight fluctuations may take place, according to the demand, and the only time we may expect a material change will be in autumn, when the sowings will decide which course our market will take. The arrivals in Smyrna to date amount to 1,838 cases, against 662 at same period last year.

SMYRNA, August 11.—The market has been very active this week, practically all the buying being on American account. The sales comprise 17 cases new Yerli t.q. at from 7*s.* 11*d.* to 8*s.* 5*d.*, 44 cases new choice Karahissar t.q. at from 7*s.* 8*d.* to 7*s.* 9*d.*, 46 cases new Karahissar t.q. at from 7*s.* 3*d.* to 7*s.* 6*d.*, 15 cases current t.q. at 7*s.* 1*d.*, and 10 cases rejections and low-testing opium at from 6*s.* 2*d.* to 6*s.* 7*d.* The arrivals in Smyrna amount to 1,838 cases, against 662 cases at the same time last year. At the last moment three local speculators wished to purchase new opium, and holders being unwilling to shade prices the market closed very firm with a higher tendency.

PEPPER.—Nothing was offered at auction. Privately, market for Singapore is dearer, with small sales of fair at 5½*d.* spot. Early in the week the sales for shipment included June-August and August-October at 5½*d.* landed terms, but sellers asked an advance on Wednesday, with buyers of June-August at 5½*d.* landed terms, August-October being quoted at 5½*d.*; but to-day market closes firmer. *White* pepper is firm privately. Holders of fair Singapore ask an advance of ¼*d.*, and 7½*d.*, which restricts business. For arrival the market is firmer, business having been done in Singapore for August-October and October-December shipment at 6½*d.*, c.i.f. d/w.

PIMENTO.—Steady, with small sales at auction at 2½d. per lb. for fair.

POTASH PRUSSATE.—Foreign yellow is tending firmer at from 5½d. to 5¾d. per lb.

QUININE firmer. Towards the close of last week more activity was shown, sales amounting to over 100,000 oz. of B. & S., and/or Brunswick being made from secondhands at 7½d. to 7¾d., and December delivery at 7½d. to 7¾d. per oz. This week the foregoing prices have been maintained, but only a small business has been done, operators preferring to wait the result of the Amsterdam sale to-day.

During the three months ended May 1906 the exports of "quinine, quinine salts and combinations" from Germany amounted to 44,600 kilos.

[The German monthly accounts of imports and exports are now made out in accordance with the classification of the Customs Tariff which came into force on March 1, 1906, and up to the present give no comparisons with former periods.]

RHUBARB.—Small sales ex auction have been made at 2s. 6d. per lb. for medium round roughish coated Shensi with three-quarters fairly good pinky fracture. Canton is firmly held at 1s. 5d., and the market remains bare of flat High-dried, and it is said there is nothing obtainable in China.

SARSAPARILLA.—The consignment of about 30 bales grey Jamaica mentioned in our previous report is about landing, and will probably be offered next week. Some 8 bales of native red Jamaica have also arrived. Deliveries of recent purchases from the warehouse have been brisk.

SENEGA.—Business has been done at 2s. 1d. per lb., c.i.f., and on the spot 2s. 3d. is quoted.

SHELLAC is firm on the spot and in steady demand, the sales including fair T.N. orange on a basis of 215s. to 216s. Fine O.K. has been sold on a basis of 226s., and good blocky firsts Button at 195s. Futures have been quiet and easier as compared with the prices a week ago, the small sales being mostly for October at 212s., and December delivery at 212s., closing buyers at 213s. The Calcutta rupee price of T.N. has declined from Rs. 107 to Rs. 105.

SODA NITRATE is 1½d. per cwt. dearer, at 11s. 3d. for ordinary agricultural quality, the refined being unaltered at 11s. 9d.

SPERMACETI is firm at 1s. 3d. per lb. for American refined.

SUGAR OF LEAD.—Foreign white has advanced to 30s. 6d. per cwt. spot.

SULPHUR is steady, flowers offering at 6l. 5s. and roll at 6l. 2s. 6d. per ton.

TAMARINDS.—At the close of the auction last week 35 barrels good fresh Antigua sold at 13s. per cwt. in bond.

VALERIAN.—Foreign is scarce, and nothing appears to be obtainable under 40s. per cwt.

VANILLA.—At auction on Wednesday the small supply of 156 tins Seychelles was offered, the greater part of which sold at irregular prices. No fine pod offered; ordinary first sold at barely steady rates, but foxy and splits, being scarce, realised fully previous prices. Fair firsts 7 to 8 in. sold at 7s. per lb., good seconds 6½ to 8 in. 4s. 9d. to 5s. 6d., 4½ to 6 in. 3s. 9d. to 4s. 6d., ordinary to fair 7 to 8½ in. 4s. to 4s. 9d., 4 to 6½ in. 2s. 6d. to 3s. 6d., common dry and foxy 2s. 9d. to 3s. per lb.

WAX, JAPAN, meets with a small demand at 57s. 6d. spot for good pale squares.

Cablegrams.

HAMBURG, August 23:—Japanese wax is firm at 115m. per 100 kilos. Ipecacuanha, refined camphor, and citric acid are all firm.

NEW YORK, August 23:—The drug-market is dull. Opium is firm at an advance of 10c. per lb. for druggists' in case-lots. Cascara sagrada remains easy at 6c. per lb. Mexican sarsaparilla is steady at 10c. per lb., and senega is weaker at 50c.—a reduction of 4c. on our previous quotation. Rio ipecac. is firm at \$1.85 per lb., and peppermint oil in bulk is a strong market at \$3.00 per lb.

AMSTERDAM, August 23:—At the auction of cinchona held here to-day 11,655 packages were offered, weighing 1,055,976 kilos., and containing the equivalent of 59,757 kilos. quinine sulphate, as compared with 7,128 packages, representing 36,479 kilos. quinine sulphate offered at the previous auction on July 12. Of the above quantity 11,153 packages sold at an average unit of 4.02c. per half-kilo., com-

pared with 4.24c. paid at the July auctions. The following were the approximate quantities of quinine purchased by the principal buyers: (1) The English and American factories, 14,093 kilos.; (2) the Brunswick factory, 10,047 kilos.; (3) the Mannheim factory, 8,863 kilos.; (4) the Amsterdam factory, 5,273 kilos.; (5) the Frankfurt and Stuttgart factories, 6,417 kilos.; (6) various buyers, 12,584 kilos.

German Drugs and Chemicals.

A Berlin report states that although the trade in drugs and chemicals in Germany during July exhibited the usual summer quietness, the amount of business transacted did not specially diminish to any large extent. This is attributed to the briskness brought about by the great heat of the past few weeks, which caused a large demand for all kinds of medicines, effervescing drinks, etc. In addition to this, and by way of contrast to the first six months of this year, there was a perceptible movement in prices in July and the beginning of August, several important articles having been advanced. The report also states that the harvest of botanic drugs promises to be favourable, although it is becoming more necessary to revert to other countries for the purchase of such drugs, as the inland production more and more declines or is too dear and difficult owing to the high cost of labour and the progressive cultivation of the land. The German crop of chamomiles has almost entirely failed, and lime and elder blossoms only reach the market in small quantities. Notwithstanding the good harvest of poppies in Asia Minor, the price of opium has become materially dearer, in consequence of the large demand from the East and from America, and, as a result, morphine and codeine have also increased in price. In fact, nearly all raw materials have risen in value owing to the greater demand.

American and Sicilian Sulphur.

According to information published in the "Pharmaceutical Era" of August 9, the output of Sicilian sulphur brought to the United States is to be handled exclusively by the Union Sulphur Co., which concern already dominates the brimstone-trade in that country. Such competition as hereafter exists will originate with the small producers of the far Western States and unimportant Japanese shipments to Pacific Coast points. As a result of the deal it is thought that prices will be advanced. Heretofore when manufacturers of acids, gunpowder, chemicals, newspaper and paper pulp, matches and fertilisers wanted sulphur there were two sources of supply, either the American sulphur or the Sicilian product. The managers of the Italian monopoly made an arrangement with the Société Générale des Soufres, of Paris, to control the export trade to America. This company in turn made an arrangement with the Union Sulphur Co., of New York, to distribute and control the American market for the imported Sicilian sulphur. The Union Sulphur Co. owns the greatest sulphur-mines in the world. These are near Lake Charles, La., and of the 250,000 tons of sulphur consumed in the United States this one company produces and markets more than two-thirds of the total. Mr. Frasch, the president, who was a young chemist in the employ of the Standard Oil Co., discovered the deposits near Lake Charles several years ago, and it is due to his efforts that the United States has become a factor in the sulphur-trade of the world. He is now a leading figure in the Société Générale des Soufres, and through his connection with that company was able to obtain the marketing of the Sicilian output for the United States for his own company.

Casein.

The American Consul at St.-Etienne calls attention to the important casein-industry recently established at Surgères, Western France, the seat of several co-operative dairies. Two experienced Germans located at Surgères have commenced to extract the casein from the skimmed milk. The orders for it from Germany came in so fast that the premises had to be enlarged. The daily production for last year was 2,000 kilos., representing 22,000,000 quarts of skimmed milk, furnished by ten dairies. Nearly all the casein is exported to Germany, where it is employed in the manufacture of high-toned paper and playing-cards, and, when transformed into a special kind of gum, is used in the stiffening of textiles. In the dyeing-industry it replaces albumen to fix the mineral colours, and in commerce furnishes colours composed of casein, hydrate of lime, and colouring matter. But it is chiefly in the manufacture of artificial ivory called "galalith," an excellent substitute for celluloid, that casein finds its use. Galalith, or milk-stone, is of German invention, and is obtained by hardening the casein by means of formaldehyde. The combination of these two bodies gives a hard substance, but one as easy to break as wood. More brilliant and more solid, although a little heavier than celluloid, galalith possesses two important advantages over the latter. It is non-inflammable and it cheaper than its rival. With the milk-stone are also manufactured a host of objects rendered attractive not only by their cheapness, but also by their polish and solidity, such as pen-holders, combs, buttons, cigar-holders, etc.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

BUSINESS INFORMATION.—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

Window displays.

SIR,—I quite agree with the statements you make *re* window-dressing. I have always prepared my own window-tickets after a style I worked out myself; a specimen card I enclose. From long practice I can now write tickets as easily and quickly as ordinary writing. The style could be improved, but it answers the purpose where large numbers are required for constant changes of window-dressing. I often employ blank postcards for writing on.

Faithfully yours,

Belfast.

J. D. CARSE.

[The sample sent is on a postcard; the writing is in black with red border and ornamentation. The writing is in a style that is easily read.—Ed.]

SIR,—I was very pleased to read your Ludlow correspondent's account of his method of window-dressing. It is precisely what I think ought to be more common than it is. I have met about half-a-dozen such pharmacists, every one of whom did well in business. In the large city in which I dwell the same practice is followed by two pharmacists, both of whom are well-to-do beyond what we expect pharmacists to be. It is a very common practice with other traders of our city in the drysaltery line, and I have often heard it said that it is a marked stimulus to trade, especially if the articles sold are enumerated on a long vertically placed board hanging at the side of the entrance. An intelligent seedsman and corn-factor does the same, and it is astonishing what a botanist can learn from the ticketed saucers in a window such as I pass daily.

Yours faithfully,

ABEL SCHOLAR. (19/91.)

SIR,—The very interesting leader on ticket-writing appears to cover all my needs, and doubtless those of many others. While writing I would like to mention that I have acted on your correspondent's (Mr. Burgess) advice, and have made a window-show for food—not Mellin's, but my own malted and cooked food, on which I get a profit of 40 per cent. I got my local traders to hire me a nice healthy doll (which went to sleep at command), a bamboo table, and a cradle. Drapery of cradle, art muslin (flowered) tied with pink ribbon; floor of window, violet sateen; back of window hung with yellow art muslin and tied back with orange ribbon to reveal the "crackled" glass at back of window. On table (placed cornerwise) an electric glow-lamp at two visible corners; a tin of food, two feeding-bottles, puff, baby hair-brush, kettle and spirit-stove; underneath Tidman's sea-salt on under steps of bambôo. Scene: Baby asleep in cradle, with soother thrown loosely on very nice baby bedclothes (lent by wife); card, brown, written with white ink—"Asleep! after a good bottle of McKee's Malted Food." Above for one week. The next week throw bedclothes aside, and stand dolly on three boxes sea-salt arranged in steps beside the table; she is wide awake, and has one hand laid on a tin of McKee's Malted Food and the other holds teat of a feeding-bottle with tubing. The feeding-bottle contains my malted food (a halfpennyworth of milk); same decorations. Card,

"Awake! and ready for a bottle of McKee's Delicious Malted Food." Result, one of the most successful shows I ever had financially and as an advertisement. Old and young have inspected it and explained it to each other, and the window has not been without one or more looking into it for the last fortnight. In the words of another of your subscribers, I can only say to my brethren in our so-called down-trodden trade, "Go thou and do likewise—and get out of the old order of things."

Yours faithfully,

Acton, W.

S. C. MCKEE.

Otto of Roses.

SIR,—In reference to the letter appearing in your issue of to-day from Messrs. P. Samuelson & Co., I can only say I regret that it should have appeared, as when carefully dissected it can only produce one impression, which is that it is the old appeal which has been the curse of the essential-oil trade for so long—"Don't take any notice of what the chemist tells you: trust the dealer." Apart from those rambling statements which do not admit of discussion, there are several remarks in that letter calling for special comment. The figure 0.855 (not 0.853), which I give as one above which samples must be regarded with suspicion, is one based on many years' experience—long before Messrs. Samuelson & Co. existed as a firm—and from samples from the most diverse sources, the most diverse districts, and from persons whose interests were as divergent as possible. I refuse to discuss the special sample to which Messrs. Samuelson & Co. consider it advisable to call attention as not one which I could certify as pure unless any further correspondence makes it necessary. But I do say most emphatically that the locality and the season are factors which have but little—although some—effect on the resulting otto. I admit that they are the universal fall-back of the Bulgarian exporter to account for his otto having certain characters. I have had many cases in the last few years which absolutely confirm me in my convictions. Shipments have come over with gravities 0.860; these were absolutely condemned: emphatic letters come from Bulgaria saying that season and locality explain everything, and that no lower gravity otto is obtainable. My clients stand firm and send the stuff back: next lot comes over several points lower. The same process is repeated, until finally, when they find that we refuse to accept this stuff, we get what we want, and a low-gravity otto is forthcoming. It is always the same—the same excuse and the same ending. It is an absolute mistake of Messrs. Samuelson to say that it is easy to doctor the otto down to the low gravity. It is very easy to doctor it up to the high gravity, but it is very difficult to reduce the gravity without detection. Perhaps your correspondent will divulge the method. The last three lines of your correspondent's letter will not, I fear, add much weight to his argument. Yours truly,

ERNEST J. PARRY.

202 High Street, Borough, S.E., August 18.

Lime-water.

SIR,—The lime-water controversy in THE CHEMIST AND DRUGGIST has prompted the procurement of samples of aqua calcis from several Dublin pharmacists. I have carefully estimated the strength of some of these samples, compared with that required by the B.P. The first five samples were obtained from some of the best chemists in the city, and they turned out amazingly accurate—but I rather suspect that the proprietors have been reading the *C. & D.* lately to effect. The drug-store from which No. 6 was obtained is scarcely of the first rank, and the abnormally high figure is apparently due to the addition of liquor calcis saccharatus. The last in the list is that of a chemist doing a good trade in a good street. The deficient strength is, of course, merely due to carelessness, but it would be rather awkward for him if a Food and Drugs Act inspector had got the sample. The percentages were:

| | | | | |
|---|-----|-----|-----|---------------|
| 1 | ... | ... | ... | 90 per cent. |
| 2 | ... | ... | ... | 86 per cent. |
| 3 | ... | ... | ... | 100 per cent. |
| 4 | ... | ... | ... | 103 per cent. |
| 5 | ... | ... | ... | 102 per cent. |
| 6 | ... | ... | ... | 175 per cent. |
| 7 | ... | ... | ... | 58 per cent. |

Your obedient Servant,

Dublin, August 19.

BRIDGET ROSE CLINTON, Ph.C.

Phenazone or Gelsemium.

SIR,—I have just had an experience which I relate with a hope that it may elicit suggestions from brother-chemists. A few days ago a gentleman called and asked for a draught for headache, and, according to my custom, I mixed him one of

| | |
|----------------------|---------|
| Phenazoni | gr. x. |
| Amonn. brom. | gr. xv. |
| Spt. amm. co. | ℥xv. |
| Tr. gelsem. | ℥viii. |

In about an hour or two he came back and complained of a swelling of the lips and throat, naturally somewhat alarmed, but with the headache gone as by magic. Knowing that the doses given were well under the maxima, I simply advised him to let the thing take its course. Strangely enough, about two days afterwards a lady customer complained of the same effects after taking a mixture made up from the same formula. In her case also the cure of the headache was complete and prompt. She informed me that it was no new experience to her, her doctor having prescribed for her several times a mixture with precisely the same results. What are those symptoms due to—phenazone or gelsemium? In the lady's case I have made up another bottle *minus* the former and now await her report. I have prescribed and dispensed the mixture scores of times with no unpleasant symptoms ensuing.

PENFRO. (130/16.)

A Clumsy Postscript.

SIR,—The following is a copy of a letter we have received : we purposely suppress the names :

Sirs,—The employés (male and female) and foremen of the above firm, having decided to hold an outing this year, kindly solicit your patronage by contributing to the fund. As we have the sanction of the head of the firm in reference to approaching the business-houses, we hope you will do your best in making this our initial outing a success.

Yours, etc.,

.....Secretary.
.....Treasurer.

P.S.—We, the above, are employed in the fruit-drink department where your acid (tartaric) is used, and are called upon from time to time to report as to quality of acid, and hope you won't forget us, as one good turn deserves another.

A stamped addressed envelope was enclosed. It is scarcely necessary for us to add that we have paid no attention to such a communication, and have treated it with the contempt it deserves.

Yours truly,

August 16. KIRKPATRICK, BARR & PATON.

The Use of Dusters.

SIR,—In two big shops last week I saw the owners wipe their fingers on their handkerchiefs and one admitted that he did it as he had no dusters or glass-cloths or towels. When the subject came up some time ago I showed a chemist round one of Boots' shops, where the ample supply of dusters and towels is as well kept up as the proper uses of these items are understood by the men. No clean dusters, no glass-cloths, no towels; no proper idea of the use of them (even when he gets them); no organised daily cleaning of dirty bottles, messy oil measures and tins; that's the ordinary chemist. The encyclopedia definition of alchemy—

An art without art; having its beginning in falsehood, its middle in toil, and its end in poverty.

—is the proper definition of the present-day druggist's shop. The noble lord who referred to "frowsy" druggist's shop was perfectly and absolutely correct. I have just bought one of these good old crusted "museums," and I thank my stars that I was once

ONE OF THE TRIBE OF JESSE. (130/72.)

Where are we now?

Right, Mr. Ed. I am far away,
Breathing ozone the livelong day;
But my mind still wanders to stress and fighting,
For I seek the home of my father the Viking.
As the good ship swings to the rolling swell,
He whispers to me, in the rising gale;
And the spume which is flecked from the speeding bow,
And dashed in my face, recalls the vow
Which ever was sworn by the Viking Lord—
He would know no song but "the song of the sword."

JAMES REID.

Consumption-cure.

SIR,—I have recently been handed a portion of an evidently antiquated family recipe-book that I might dispense a consumption "cure" from among the numerous formulæ. I give the recipe, as it may be of interest to readers of the *C. & D.* The author of the work is unknown, as the cover has become detached.

Faithfully yours,

Belfast.

H. CORBETT MEYRICK, Ph.C.

Take in 3 pts. of fountain-water, 1 oz. tamarinds, 1 oz. mullon-leaves. Boil to reduce the quantity, and when cold add senna, coriander-seeds (bruised), each 2 drams; also add a little honey to preserve it. Take a glass twice a day. "Deep decline" cured by mixing bog-bean, lemons, mullon-leaves, and watercress, made in the manner of tea and drunk freely; also drink new buttermilk, and asses' milk if possibly got. This will cure consumption in a month.

Appreciation.

A *Retired Chemist* (121/13) writes: "I owe you many thanks for your splendid Summer Issue of the *C. & D.*, which represents a vast amount of hard work carried on under the pressure of almost tropical weather, which is scarcely bearable here—in Cannon Street! Having so much spare time, with a wholesome dread of idleness, I study the *C. & D.* small points, and find it perfect."

Dispensing Notes.**Diuretin Solution.**

SIR,—We recently sent out one or two bottles of mixture, as prescription, containing diuretin. The diuretin dissolved immediately, forming a thick milky solution. To-day we made the mixture up again using a fresh supply of diuretin, and produced a perfectly water-clear solution. The last was an original bottle of Knoll's product; the first stock simply bore a drug-house label and was in a corked bottle. I shall be much obliged if you will tell me which is right, and what the explanation is.

Yours truly,

NEMO. (130/20.)

[Diuretin (sodium theobromine salicylate) is somewhat unstable, and the first sample seems to have decomposed. With fresh diuretin a clear solution should be obtained.]

Legal Queries.

A. C. M. (121/69).—Wafers of cerium oxalate, being composed of a "pure drug," can be recommended for disease without the necessity of affixing to the package a medicine-stamp.

Inquirer (123/37) (1) asks who would be liable to prosecution, the master or the assistant, when a sale of an unstamped proprietary medicine is made with the knowledge or wish of the employer. We should say that, strictly speaking, both the master and the assistant would be liable, but we do not think that the Revenue authorities would trouble to prosecute the assistant. (2) With regard to whether a manager or an assistant living indoors can legally claim time off for meals, there is no case that we know of on the subject, but if an assistant were dismissed for taking a not unreasonable time for his meals the Court would no doubt treat it as a case of wrongful dismissal. The matter is really one of contract, and ought to be agreed at the time of engagement. If a custom is to be set up, the custom must be practically universal to be recognised by the Court.

Phlox (113/25).—You should consult a legal solicitor, but it would be better to arrange matters without going so far. Why not have a quiet talk with your principals first, putting aside your suspicions that they are trying "to do you out of" your holidays. If the agreement for holidays was only verbal you could not enforce your claim. Your employers seem to have treated you well in allowing you five separate days off to go and view businesses.

P. B. & Co. (125/33).—We cannot answer your letter on the meagre details you give. It is essential to the discovery of the extent of the trade-mark that we know the firm who claim the particular words you refer to.

J. H. (125/74), who asks as to the liability to stamp-duty of a liver and stomach mixture, is reminded that we do not consider anonymous communications.

F. J. N. (121/66).—There is no restriction on advertising recipes for the cure of diseases. The formulæ must not profess to produce proprietary medicines, as the proprietors would promptly apply for an injunction to stop the practice.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion or replies on a particular date, nor can we repeat information given during the past twelve months.

Zero (96/44).—The GREEN COLOUR used by confectioners is chlorophyll. It is sold in various forms, one of the most usual being chlorophyll diluted with dextrin. For green-icing cakes the sugar is coloured with sufficient green.

Aspirin (99/56).—POWDER FOR GAPS IN POULTRY.—This is a mixture of camphor (1) and chalk (4). Some powders of this class contain, in addition, carbolic acid. The method of using is to fill a confined space in which are the fowls with the dust from the powder, and shut the fowls up for some time till the powder has settled down.

G. C. (112/46).—In the case of a burn with hydrofluoric acid, wash with dilute ammonia and dress with Caron oil.

E. W. P. (112/26).—MILK THAT "WENT WRONG."—Our correspondent inquires why a sample of milk delivered at 8 A.M. curdled at 11 A.M. He states that the sample "had not time" to turn acid, and suggests that a ferment derived from the fodder (vetches or brooklime) had passed through the cow and curdled the milk. He asks: "(1) Does vetch or brooklime contain a ferment? (2) Is any ferment passed unchanged by the stomach into the milk?" It is safe to answer both these two questions in the negative; but although no ferment exists in the fodder, it does not follow that the fodder was not the cause of the trouble. There are many different micro-organisms which will curdle milk; some of them produce their coagulating ferments without the production of much acid, whilst others act even in a neutral reaction. It must also be borne in mind that milking the cow and subsequent storing of the milk are not usually conducted in such a way that bacteriological infection is impossible. If the milk "goes wrong" it is more likely to have done so because of infection during these processes than that any ferment should have been derived with the milk from the cow. Fodder is commonly infested with bacteria, and the cow being generally engaged in feeding at the time of milking, the fodder being stored and tossed about in the milking-shed, it is far safer to presume that the coagulating ferment was derived from bacterial infection from the fodder. In reference to bacteria on fodder it is interesting to note the frequent presence of a bacillus on Timothy-grass, which resembles and has the same staining properties as the tubercle bacillus, hence the necessity for caution in examining a milk for the consumption bacillus and the wisdom of reporting "acidfast bacilli" found rather than "tubercle bacilli" found. It is unlikely that a ferment could escape the digestive action of the cow, pass through the blood stream and finally be excreted by the mammary gland.

H. J. F. (120/1).—HAIR-WASH INGREDIENTS.—Esprit menthol (spiritus mentholi) is, according to an unofficial formulary in use in Germany, made by dissolving 5 parts of menthol in 95 parts of spiritus vini gallici. Extract rosæ may refer to the perfume or to a compound tincture of red-rose leaves, which also finds acceptance on the Continent. We can trace no formula for esprit eucalyptus, but suggest a spirit made on the lines laid down in the British Pharmacopœia.

J. M. (125/24).—The purple and green tints given to toilet-waters are obtained by adding small quantities of aniline violet and malachite green.

Mizpah (128/2).—PERMANGANATE OF POTASH AS A HAIR-STAIN.—See *C. & D.*, July 14, p. 72. The stain produced with permanganate is harmless.

J. E. S. (118/70).—You must excuse us not giving you "a list of the various vegetable oils"; it would take up our space unnecessarily. Refer to one of the standard works on oils mentioned in the *C. & D. Diary* list of books.

S. H. (123/21).—The Liverpool price-list would probably meet your requirements. A new edition has just been published. It is obtainable from any wholesale house.

R. E. A. (122/25).—CLARKE'S STANDARD SOAP SOLUTION.—Take a cake of Castile soap and scrape off 4 or 5 grams of shavings, which dissolve in 500 c.c. of a mixture of two volumes of methylated spirit and one volume of distilled water. Filter off the insoluble matter, and dilute the soap solution with half its volume of water. A portion of this solution is then further carefully diluted until 7 or 8 c.c. is required to form a permanent lather with a mixture of 25 c.c. of standard calcium-chloride solution (prepared by dissolving 0.2 gram of Iceland spar in dilute hydrochloric acid, and, after driving off excess of acid on the water-bath, making up to 1,000 c.c. with distilled water) and 25 c.c. of distilled water.

J. P. M. (123/64).—(1) AERATED WATERS.—The strengths of soda, potash, and lithia-water were given in the B.P. 1885 as 30 grains to the pint in the case of soda and potash (using the bicarbonate) and 10 grains of lithium carbonate to the pint for lithia-water. For seltzer-water the following is a good recipe:

| | | | |
|-----------------|-----|-----|---------|
| Sodium chloride | ... | ... | 4½ oz. |
| Fluid magnesia | ... | ... | 20 oz. |
| Water | ... | ... | 110 oz. |

Make a solution and use 1½ oz. to each syphon.

(2) The advertising columns of THE CHEMIST AND DRUGGIST and the *Chemists' and Druggists' Diary* will show you the chief houses for lemon and ginger-ale essences.

H. B. R. (124/33).—LIQUOR SODII CARBOLATIS, OR SODA PHÉNIQUE.—The proper formula for this is—

| | | |
|------------------------------------|-----|----------|
| Crystallised carbolic acid | ... | 7 grams |
| Caustic-soda solution (s.g. 1.332) | ... | 10 grams |
| Water to | ... | 100 c.c. |

Dissolve. For a mouth-wash 1 part of this solution is dissolved in 30 parts of water.

W. J. (121/29).—Address your inquiry to the Clerk of the British Association for the Advancement of Science, Burlington House, London, W. Indicate what papers you are interested in.

G. A. D. (115/29).—The MAGIC SNUFF used for making people sneeze is prepared from such sternutatory substances as quillaia, asarabacca, or the various peppers. The joke is rather a stupid one.

Juno (119/22).—ESSENCE OF RENNET.—The following is a good recipe from "Pharmaceutical Formulas":

| | |
|--------------------|-----|
| One rennet | |
| Salt | ... |
| Rectified spirit | ... |
| Glycerin | ... |
| Syrupy lactic acid | ... |
| Chloroform | ... |
| Water | ... |

Chop the rennet small, macerate for four days, decant, and filter the dregs. The product should measure 3xl.

P. K. (117/42).—ENCAUSTIC PASTE.—A standard formula for this is as follows:

| | | |
|-----------------|-----|-----------|
| White beeswax | ... | 5 oz. |
| Gum elemi | ... | 45 grains |
| Benzol | ... | 2 oz. |
| Oil of lavender | ... | 3 oz. |

Part of the lavender oil can be replaced with turpentine. Another recipe consists of paraffin-wax made into a stiff paste with oil of lavender.

W. B. (117/52).—The yellow-tinted feathers on birds are made to appear white by the use of a weak solution of a blue dye. The domestic blue-bag or an aniline water-soluble dyo can be used.

R. A. N. (117/26).—CARBOLISED RESIN for dental use:

| | | |
|-----------------------------|-----|------|
| Resin, mastic, and sandarac | aa. | 5j. |
| Camphor and phenol | ... | 5j. |
| Chloroform | ... | 3j. |
| Alcohol (90-per-cent.) ad | ... | 3iv. |

Solve et filtra.

H. T. (128/65).—REGISTRATION OF TRADE-MARK.—Refer for full particulars to the *C. & D. Diary*.

Western (116/69).—TINCTURA CURCUMÆ.—This is made by macerating 1 part of coarsely powdered turmeric with 5 parts of 90-per-cent. alcohol.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "*C. & D. Diary*," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

126/56. Maker of Tic Sano.

128/28. Name and address of makers of Buchanan's cachous.

131/21. Where can the "Oriental" and "Dot" feeders be obtained?

131/13. Who makes the small hollow wooden blocks for holding sample bottles for postal transmission?

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form No. 7, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," August 1, 1906.)

"NAZAR"; for a nasal catarrh remedy. By J. A. Walsh, 67 Dublin Road, Belfast. 280,495.

Square and circular label devices enclosing an open book; for an ointment. By the Northern Mfg. Drug Co., 155 Walton Road, Liverpool. 281,203.

"FOTOM"; for chemicals in Class 3 and for perfumery. By T. Davies, Gannock Park, Deganwy, Carnarvonshire, 282,318, 282,319.

"COFORMALIX"; for a medicine. By G. Lunan, 20 Queensferry Street, Edinburgh. 284,037.

"LYKIN"; for mineral and aerated waters. By Lyle & Kinahan, Ltd., 51 Donegall Place, Belfast. 284,026.

"LAVOZONE"; for a laundry preparation. By B. Laporte, Park Street, Luton. 282,369.

"VILLA"; for perfumed soap. By Lever Bros., Ltd., Port Sunlight. 281,635.

"JOHANN MARIA FARINA A° 1851" on label device; for eau de Cologne. By Johann Maria Farina, Zur Madonna, Cologne. 281,648.

"OZORIS"; for mouth-wash and tooth-powder. By Roberts & Co., 76 New Bond Street, London, W. 284,065.

Three oblong leaf label devices, one having thereon a representation of an elephant with a crown device (disclaimed) on the trappings; for brown Windsor soap. By E. Cook & Co., Ltd., Bow, London, E. 281,710.

"ROZOTTO"; for perfumery. By W. H. Hewett, 33 High Street, Cowes. 283,829.

"SOVBONA"; for perfumery. By W. F. Charles, Loughborough. 283,858.

(From the "Trade-marks Journal," August 8, 1906.)

"PETURN"; for a veterinary skin, hair, and foot preparation. By L. B. Thornton, 115 Landor Road, London, S.W. 283,971.

"NEUROISINE" (disclaimed) on oblong network and scroll label devices; for a pharmaceutical preparation. By G. Prunier, 6 Avenue Victoria, Paris. 281,287.

Device of a burning torch and a butcher's knife crossed within an oblong; for chemicals in Class 3. By Douglas Manufacturing Co., 96 Church Street, New York. 282,100.

"ACITRIN" and "SPIROSAL"; for chemicals in Class 3. By Farbenfabriken vorm. F. Bayer & Co., Elberfeld. 282,763, 282,764.

"NEURALGINE" ("Neural" disclaimed); for a neuralgia, toothache, etc., medicine. By Needlams, Ltd., 15 Albion Street, Huddersfield. 283,072.

"STROBIN"; for a fabric and hat-cleaning preparation. By O. Voss (M. Queisner), 108 Kurfürstenstrasse, Berlin. 282,921.

"ALGIRON"; for chemicals in Class 3. By Evans Sons, Lescher & Webb, Ltd., Liverpool. 283,697.

"ANTICUTLEP" ("Anti" disclaimed); for chemicals in Class 3. By W. Surrey Drug Co., Windsor Street, Chertsey. 283,945.

"ROZOAK" and wreath and dove devices; for surgical apparatus. By Chemists' Wholesale Sundries Co., 15 Chapel Street, Salford. 280,986.

"DEFIANCE" food substances excluding tea, dried fruit, and yeast. J. Nathan & Co., Ltd., 88 Gracechurch Street, E.C. 283,208.

"STAR" and device of a star on a flaming sun (limited to specific colours); for flavouring essences and colourings. By A. Boake Roberts & Co., Ltd., 100 Carpenter's Road, Stratford, Essex. 284,528.

"LYXAVON"; for candles, soap, detergents, etc. By S. Maitland & Co., 11 Grocers' Hall Court, London, E.C. 284,269.

"GERMANDRÉE" and signature on circular and square label devices; for a toilet-powder. By Mignot-Boucher, 19 Rue Vivienne, Paris. 282,470.

"HEBRAR"; for perfumery. By G. W. Friedlander, 2 Town-wall Street, Dover. 282,794.

(From the "Trade-marks Journal," August 15, 1906.)

"MONOX"; for chemicals in Class 1. By G. Westinghouse, Penn Avenue, Pittsburgh, Pa., U.S.A. 283,177.

"CRESCENT BRAND"; for specified chemicals in Class 1, for alkalis in Class 2, for soda bicarbonate in Class 42, and for bleaching-powder and washing-soda. By Brunner, Mond & Co., Ltd., Winnington, Northwich. 283,234, 283,236, 283,237.

"STONEFERRY" and oval device of a river ferry; for chemicals in Class 1, for candles, soap, detergents, etc., and for polishes. By Hanger, Watson & Harris, Ltd., Stoneferry Works, Hull. 283,606, 283,609, 283,610.

"COOPERINA"; for a cattle lung and intestinal worm remedy. By Wm. Cooper & Nephews, Berkhamsted. 277,328.

"BOKO"; for a veterinary ointment. By Bagot Bros., 48 Newhall Hill, Birmingham. 283,547.

"CLAVINE"; for a corn-salve. By I. P. Moffatt, 19 Market Square, Camborne. 280,479.

"BLUE-JAY" and device of two tramps walking on a railway track. By Bauer & Black, 283 Twenty-fifth Street, Chicago, U.S.A. 273,906.

"KYLETS"; for a medicine. By Applied Inventions, Ltd., 30 Denman Street, London, S.E. 282,262.

"SIMOLET" and "CAPSULETTE" ("Capsule" disclaimed); for chemicals in Class 3. By J. G. Robbins, 198 Romford Road, Stratford, London, E. 282,663, 282,762.

"VOCULES"; for chemicals in Class 3. By Thompson & Capper, 51 Piccadilly, Manchester. 282,818.

"ANTISCLEROSIN"; for arteriosclerosis preparations. By W. Natterer, 28 Schillerstrasse, Munich. 282,999.

"DIABETESERIN"; for a diabetes remedy. By W. Natterer, 28 Schillerstrasse, Munich. 283,000.

"TYLMARIN"; for chemicals in Class 3. By W. H. Martindale, 10 New Cavendish Street, London, W. 283,966.

"OLIVETTE"; for chemicals in Class 3. By A. H. Deakin, 17 Great Sutton Street, London, E.C. 283,975.

"CENTURY" and "GRAFLEX"; for photographic apparatus. By Kodak, Ltd., 57 Clerkenwell Road, London, E.C. 283,901, 283,919.

"KOODOO"; for photographic apparatus. By Mary A. Meakin, 64 Belsize Road, London, N.W. 284,464.

"JAPINE"; for photographic paper. By Platinotype Co., 22 Bloomsbury Street, London, W.C. 284,435.

"KIRO" and "STYM" and devices (in colours) of two circles partly superimposed and a beacon; for mineral and aerated waters. By Wheatley & Bates, Ltd., Napier Street, Sheffield. 282,326.

"BEDE"; for mineral and aerated waters. By E. Lautebach, 26 Zetland Street, Monkwearmouth. 284,424.

"LYTELLA"; for candles, soap, detergents, and for perfumery. By F. Tucker & Co., Ltd., 15 Clifford Street, London, W. 281,922, 281,923.

"FEARLESS" (manuscript); for common and toilet soaps. By R. Wheen & Sons, Ltd., Deptford, London, S.E. 283,381, 281,923.

College Notes.

BRISTOL UNIVERSITY COLLEGE.—The following is a corrected notice of the medical information regarding this College which was given in the *C. & D.*, August 11, p. 268:

Students can complete in Bristol the entire course of study for the medical and surgical degrees of the University of London, the diplomas of the Conjoint Board and the Society of Apothecaries. Fees: A composition-fee of 133 guineas, which covers the whole cost of the curriculum save 14. 11s. 6d. for vaccination, and 17. per week for one month during residence in the hospital. Dean, Professor Edward Fawcett, M.D.; Registrar and Secretary, James Rafter.

WHERE TO STUDY.

The following educational institutions are advertising in this issue:

School of Pharmacy, 17 Bloomsbury Square, London, W.C.
Muter's South London School of Pharmacy, 325 Kennington Road, London, S.E.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, London, S.E.

London College of Chemistry, Pharmacy, and Botany, 323 Clapham Road, London, S.W.

South of England School of Pharmacy, 186 Clapham Road, London, S.W.

City of London College, White Street and Ropemaker Street, Moorfields, London, E.C.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Scottish Optical College, 157 St. Vincent Street, Glasgow.

Exchange Column—Bargains.

TERMS.

One halfpenny per word with name and address.

One penny per word if we register the address and attach a number.

No Advertisement inserted for less than 6d.

BUYERS AND SELLERS, PLEASE NOTE.

We again call the attention of those who use this column for the sale or purchase of goods to the desirability of using our Deposit System. Some forward goods before they receive money for them, and others forward money to advertisers before they have even seen the goods. Disappointment in such circumstances is bound to happen now and then, and it is to prevent this, as well as to check fraud, that our Deposit System was instituted.

All that is necessary when a bargain is struck, or is likely to be, is for the buyer to send us a cheque, or Post Office Order, for the price which he has agreed to pay for the goods. A commission of 6d. is charged by us on any transaction of £3 or less, and 1s. if above that amount. The Commission is payable by the purchaser, and should be included in the money sent to us.

When we hear from the buyer that the goods are satisfactory, and not till then, we hand over the money to the seller. The interests of the latter are secured by the fact that he does not despatch the goods to the buyer until he hears from us that we have received the money.

This System was instituted solely for the protection of our readers, and it has so often been of real service that it should be more generally used. All cheques and postal orders should be made payable to "Edward Halse," and crossed "Martin's Bank, Ltd."

FOR DISPOSAL.

APPARATUS.

Tablet-machine, by Colton, hand and power, complete with set of dies; low price; offers. "RANIX," 12 Wigmore Street, W.

Suppository-moulds by Lynch.—15 gr. 6's, new, 4s. 3d.; 15 gr. 12's, nearly new, 8s.; 30 gr. 6's, new, 7s.; 60 gr. 6's, new, 10s.; 12 6's pessary-moulds, Rendell's shape, 4s. 6d. each, 50s. lot; approval, C. & D. Deposit System. BROADWAY PHARMACY, Ludgate Hill, E.C.

BOOKS AND PERIODICALS.

What offers? Attfeld's "Chemistry" (latest edition), new; also Newth's, in good condition. 126/13, Office of this Paper.

OPTICAL AND PHOTOGRAPHIC.

Bruce Green's £4 trial-case, spectacles and folders, complete, new; what offers? PERKINS, 1 New Road East, Buckland, Portsmouth.

Surplus Stock.—10 15s. Butcher's Domino, 6s. each, 50s. lot; 3 21s. "Prize Pecto," 10s. each, 27s. 6d. lot; 2 Butcher's 70s. Triple ½-pl., 45s. each, 85s. lot; 3 12s. 6d. Holborn stamp camera, 6s. 6d. each, 18s. lot; £3 10s. ½-pl. square bellows camera, 42s.; all perfect. 171 High Street, Walthamstow. Deposit Money C. & D.

Overstocked 1906 Patterns.—21s. Klito, 13s. 6d.; 25s., 16s. 3d.; 42s., 26s. 6d.; 50s., 32s.; 21s. Holborn, 13s. 6d.; 25s., 16s. 3d.; 42s., 26s. 6d.; 70s. Victo, 49s.; 84s. Sanderson, 59s. 6d.; deposit cash with C. & D.; all carriage paid and in perfect condition. 128/24, Office of this Paper.

PROPRIETARY ARTICLES.

Overstocked.—3 doz. Doan's kidney-pills and 2 doz. Williams's pink pills, £5 15s.; 6 doz. each Carter's liver, Forde's bile beans, £6 3s. 6d.; carriage paid, cash. 130/35, Office of this Paper.

SHARES.

Shares for Sale.—See p. 82.

50 Ordinary £1 shares Ilford Co.; what offers? "S. B." (127/22), Office of this Paper.

A few 6 per cent. cum. pref. shares in old-established business to be disposed of; dividend well secured. Apply, 129/49, Office of this Paper.

SHOP FITTINGS.

Two mahogany wall-cases, shelved, 36½ × 70 × 6; will sell cheap; offers wanted. BELLWOOD, Norton Road, Stockton.

Immediate sale, magnificent circular-front glass counter-case; cost over £50; 6 ft. 6 in. by 2 ft. by 2 ft. "TRUSTEE," c/o Barron Harveys, Giltspur Street, London.

MISCELLANEOUS.

6 dozen 1s. perfumes, soiled labels, assorted, 3s. dozen. BELLWOOD, Norton Road, Stockton.

Dental.—A few odd materials and teeth, cheap to clear. PERKINS, 1 New Road East, Portsmouth.

Tooth-forceps.—13 instruments, plated, equal to new, in leather wallet, £2. HAZLETT, 26 London Road, Liverpool.

Dental chair, Howard's pump, perfect, condition as new; cost 30 guineas; price 13 guineas. OVERTON, 7 South Side, Clapham Common.

Copper steam-jacketed pan, also plain copper pan, thoroughly overhauled and ready for work. Full particulars given on application to 53 Shakespeare Street, Southport.

Syphons, 6 dozen plain 30-oz., second-hand, guaranteed in working order, what offers to clear the lot? Sample carriage paid on receipt of 1s., KIRKUP, Chemist, Newcastle.

One gross Kohayasai's Japanese dentifrice, offers wanted; about 8 doz. Brodwick's 6d. ale and stout tabs., what offers? a 5-cwt. cask of red-lead on hand, will take 22s. per cwt. to clear. J. PORTER & SON, Coalville, Leicestershire.

Hamblin Smith's "Trigonometry" and Key (latest), 5-draw telescope, 2 in. achromatic objective; also mariner's ditto, Brown, Bristol; what offers cash, or exchange recent optical works. ELLIS, 36 Canterbury Road, Worthing.

Overstocked.—Five Empress ½, 5 ordinary ½, 2 ordinary ½, Paget ½; doz. Imperial Paper, Nipper and c.d.v.; 1 lb. salol; 20 lb. pot. oxalas; 1 lb. sod. tungstas; 2 lb. sod. acetate; 5 lb. sod. sulphate; 1½ lb. Canada balsam; 1 lb. cupri sulph. pur. Offers, WILLIAMS, Holyhead.

WANTED.

Trial case wanted, mounted lenses. 130/31, Office of this Paper.

Minor hooks, Chemists' books, for cash or exchange. GOWER, Book-seller, Waterloo, Liverpool.

Squire's "Companion," latest edition, good condition. State price, SPENCER, 4 Portland Street, Leamington.

Chambers-Inskip ophthalmometer, 210 volts; must be in good order and cheap. BENNETT, Chemist, Whitehaven.

Shop-rounds, 2-lb. ointment-jars, scales, &c., for Branch; also outside mortar and pestle. 127/9, Office of this Paper.

1d. (¼ oz.) and 2d. (½ oz.) decorated cold-cream tins in quantity. Samples and prices to FITT, Chemist, Norwich.

Case, to stand on floor, 6 ft. high by 4 ft. long, about 6 or 8 in. deep; or two, half the height. INCH, Chemist, Barnstaple.

ADDRESSES WANTED.

If Mr. William Burnett, Chemist, late of Oldham, will communicate with advertiser, he will hear of something to his advantage. Address, in first instance, 125/17, Office of this Paper.